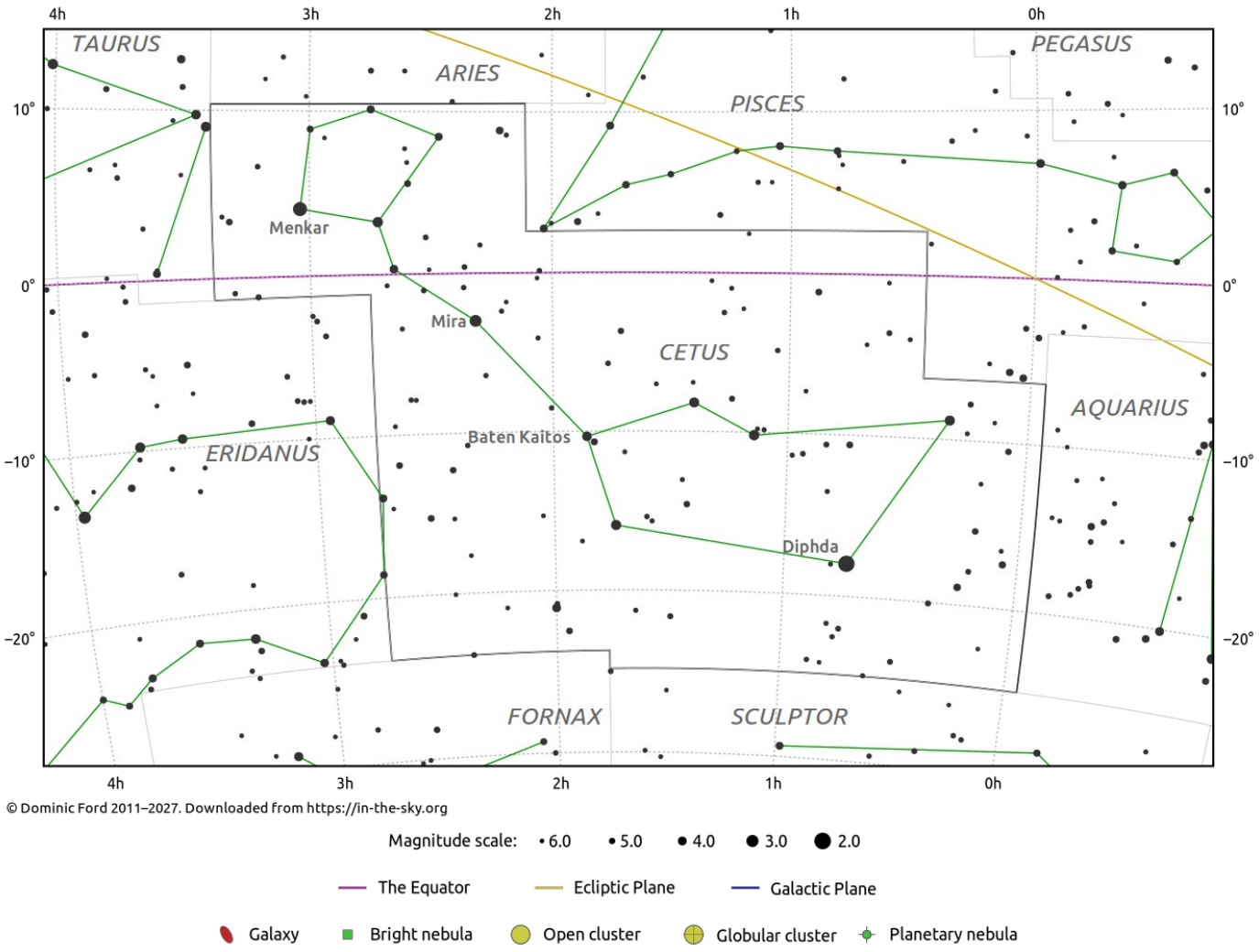
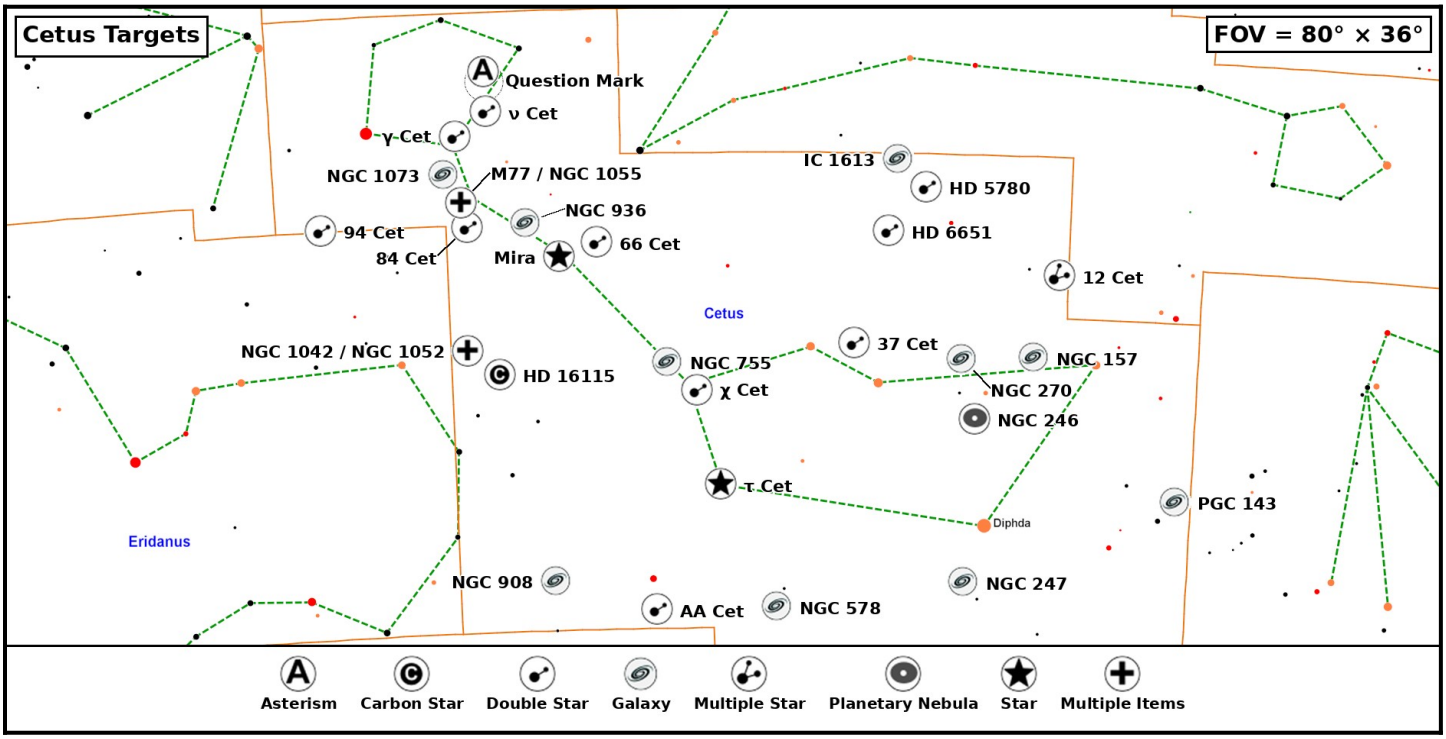
Constellation: Cetus (Cet)

Evening Visibility: **September – November**
Opposition: **October**
Latitude Visibility: **+65° to -79°**
Online Information: | In-The-Sky.org | Constellation-guide.com |

In-The-Sky.org Constellation Map





Constellation Targets

PGC 143, 12 Ceti, NGC 157, NGC 246, NGC 247, NGC 270, HD 5780, IC 1613, HD 6651, 37 Ceti, NGC 578, Tau Ceti, Chi Ceti, NGC 755, AA Ceti, 66 Ceti, Mira, NGC 908, NGC 936, HD 16115, Nu Ceti, Question Mark, NGC 1042, NGC 1052, 84 Ceti, Gamma Ceti, Messier 77, NGC 1055, NGC 1073, 94 Ceti

Constellation Object Types Summary

Objects: 30 | Galaxies: 14 | Double/Multiple Stars: 11 | Asterisms: 1 | Planetary Nebulae: 1 | Variable Stars: 1 | Carbon Stars: 1 | Stars: 1

Mythology/Back Story

Cetus is Latin for "whale," but its Greek name, Ketos, meant any large sea monster. In Greek mythology, Queen Cassiopeia boasted that she was more beautiful than the sea nymphs called the Nereids, so Poseidon sent Cetus to ravage the coast of King Cepheus's kingdom. The king and queen chained their daughter Andromeda to a sea cliff as a sacrifice, but Perseus arrived in time and slew the monster. Cetus is one of the 48 constellations cataloged by Ptolemy in the 2nd century CE. It is fourth in size, yet its stars are faint: the brightest, Diphda, is Arabic for "the second frog," and Menkar means "nostrils." Far from the Milky Way, Cetus offers galaxies like M77, the variable star Mira, the planetary nebula NGC 246 and the Sun-like star Tau Ceti.

Constellation Guide

Constellation Highlights

Cetus contains a number of galaxies, from the bright Seyfert spiral M77 to members of the Sculptor Group, and includes a planetary nebula, a binocular asterism and several fine colored doubles.

- **12 Ceti** (MS-3) – Yellow and blue pair from the RASC colored list, with a wide second companion for low power.
- **NGC 246** (PN) – The Skull Nebula, with a triple star at its center; an OIII filter helps.
- **HD 5780** (DS) – Yellow and blue pair from the RASC colored list, an easy split.
- **66 Ceti** (DS) – Orange and blue showcase pair (Haas) with a strong color contrast.
- **Gamma Ceti** (MS-3) – Kaffaljidhma, a demanding close, unequal split with a wide third star.
- **NGC 157** (G) – A patchy-armed spiral bright enough for suburban skies.
- **NGC 247** (G) – The Claw Galaxy, a large spiral in the Sculptor Group.
- **HD 6651** (DS) – A true pair of Sun-like stars, yellow-white and yellow.
- **Question Mark** (AS) – A curving chain of stars for binoculars or a finder.
- **Messier 77** (G) – The Squid Galaxy, one of the brightest Seyfert galaxies, with NGC 1055 nearby.

Constellation Targets Summary List

Object (Type)	Links	Gear	Aliases	Stats
PGC 143 (G)	1	T	Wolf-Lundmark-Melotte; Wolf–Lundmark–Melotte Galaxy; WLM; DDO 221; UGCA 444; MCG -3-1-15	| Mag=11.0 | Size=11.6'x4' | SB=23.8 | MC=IB(s)m |
12 Ceti (MS-3)		B, T	SAO-128791; HIP-2353; HR 117; HD 2637; 12 Ceti; 12 Cet; HJ322; BD-04°54; ADS 410; FK5 13; WDS00300-0357; J003002.35-035726.; Sky300003; PPM182329; TYC 4675-0412-1	**AB** | Mag=5.9 / 10.2 | Sep=12" | PA=202° | mBortle=9 | mApt=50mm | RecMag=20x | Spec=M0III | Color=yellow / blue | **AC** | Mag=5.9 / 11.0 | Sep=223.7" | PA=110° | mBortle=9 | mApt=70mm | RecMag=10x | Spec=M0III | Color=yellow |
NGC 157 (G)	1	T	NGC-157; Amoeba Galaxy; Levy-240; PGC 2081; MCG -2-2-56; IRAS 00322-0840; 2MASS 00344675-0823473	| Mag=10.4 | Size=3.7'x1.9' | SB=21.1 | mBortle=7 | mApt=60mm | MC=SAB(rs)bc |
NGC 246 (PN)	1	T	NGC-246; Caldwell 56; C-56; Cetus Ring; Skull Nebula; Pac-Man Nebula; Levy-61; PK 118-74.1; HIP-3678; ARO 43; PN G118.8-74.7; VV 4	| Mag=10.9 | Size=3.8' | SB=22.4 | mBortle=4 | mApt=130mm | MC=Elliptical |
NGC 247 (G)	1	B, T	NGC-247; Caldwell 62; C-62; Claw Galaxy; Levy 239; PGC 2758; ESO 540-22; UGCA 11; MCG -4-3-5; ESO-LV 5400220; IRAS 00446-2101; 2MASS 00470855-2045374	| Mag=9.2 | Size=19'x5.5' | SB=22.9 | mBortle=4 | mApt=102mm | MC=SAB(s)d |
NGC 270 (G)	1	T	NGC-270; Levy-56; PGC 2938; MCG -2-3-27; 2MASS 00503252-0839057	| Mag=12.9 | Size=1.8'x1.2' | SB=22.4 | mApt=350mm | MC=S0-a |

Constellation Guide

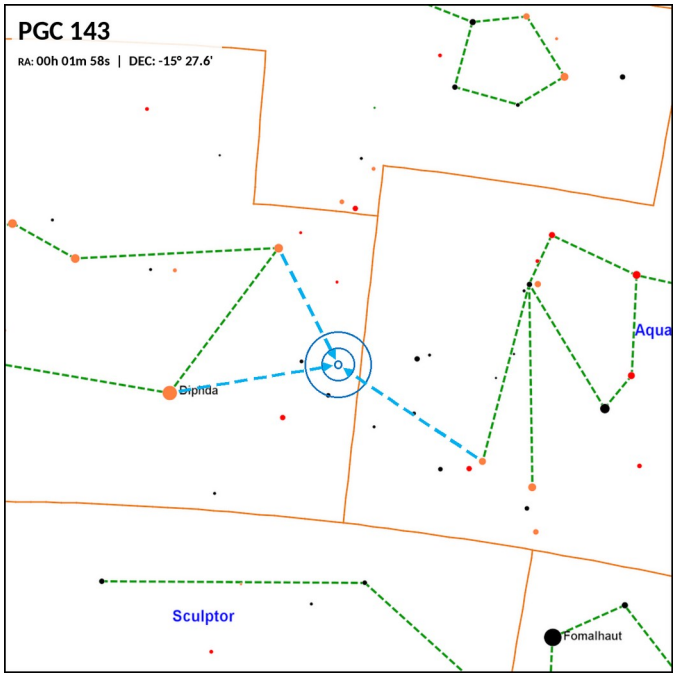
Object (Type)	Links	Gear	Aliases	Stats
HD 5780 (DS)		B, T	SAO-109577; HIP-4624; Σ-80; STF 80; WDS00594+0047; J005923.31+004643.; Sky590045; PPM144132; BD+00°159; ADS 818; TYC 0012-1234-1	**AB** | Mag=7.8 / 9.1 | Sep=29.9" | PA=339° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=K3/5III | Color=yellow / blue |
IC 1613 (G)	1	B, T	Caldwell 51; C-51; UGC 668; PGC 3844; MCG 0-3-70; CGCG 384-68; IRAS 01025+0153	| Mag=9.3 | Size=18.3'x17.1' | SB=24.2 | MC=IB(s)m |
HD 6651 (DS)		T	SAO-129129; HIP-5253; Σ-91; STF 91; WDS01072-0144; BD -02 160; ADS 923; TYC 4681-1242-1	**AB** | Mag=7.4 / 8.6 | Sep=4.3" | PA=314° | mBortle=9 | mApt=50mm | RecMag=60x | Spec=F9V / G3V | Color=yellow-white / yellow |
37 Ceti (DS)		B, T	SAO-129193; HIP-5799; HR 366; HD 7439; 37 Cet; ADS 1003; BD-08 216; STFA3; ΣI3; WDS01144-0755; TYC 5273-2653-1	**AB** | Mag=5.2 / 7.9 | Sep=49" | PA=331° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F5V / G9V | Color=yellow-white / yellow |
NGC 578 (G)	1	T	NGC-578; Levy-238; PGC 5619; ESO 476-15; UGCA 18; MCG -4-4-20; ESO-LV 4760150; IRAS 01280-2255; 2MASS 01302854-2240019	| Mag=11.5 | Size=4.8'x3' | SB=23.0 | mApt=400mm | MC=SAB(rs)c |
Tau Ceti (S)	1	T	SAO-147986; HIP-8102; HR 509; HD 10700; τ Cet; 52 Cet; BD -16 295; LHS 146; GJ 71; WDS 01441-1556; TYC 5855-2292-1	| Mag=3.5 | Spec=G8V | Color=yellow |
Chi Ceti (DS)	1	B, T	SAO-148036; HIP-8497; HR 531; HD 11171; Chi Cet; 53 Cet; ENG8; BD-11 00352; WDS01496-1041; TYC 5278-2438-1	**AB** | Mag=4.7 / 6.8 | Sep=184.1" | PA=250° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F0V / G3V | Color=yellow-white / yellow |
NGC 755 (G)	1	T	NGC-755; NGC-763; Levy-341; PGC 7262; MCG -2-6-5; IRAS 01539-0918; IRAS 01538-0918; SDSS 015622.66-090340.9; 2MASS 01562268-0903411	| Mag=12.6 | Size=2.9'x0.9' | SB=22.3 | mApt=250mm | MC=SBcd |
AA Ceti (MS-3)		T	SAO-167451; HIP-9258; HD 12180; H258; WDS01590-2255; Levy-241; CoD -23 737; CPD -23 227; ADS 1581; TYC 6430-0631-1	**AB** | Mag=7.3 / 7.6 | Sep=8.7" | PA=302° | mBortle=9 | mApt=50mm | RecMag=30x | Magnitude Range= 6.2 to 6.7 | Period=0.5d | Spec=A7/8V / G0 | Color=white / yellow | **AC** | Mag=7.3 / 11.8 | Sep=167.5" | PA=356° | mBortle=9 | mApt=102mm | RecMag=10x | Spec=A7/8V / K | Color=white / orange |

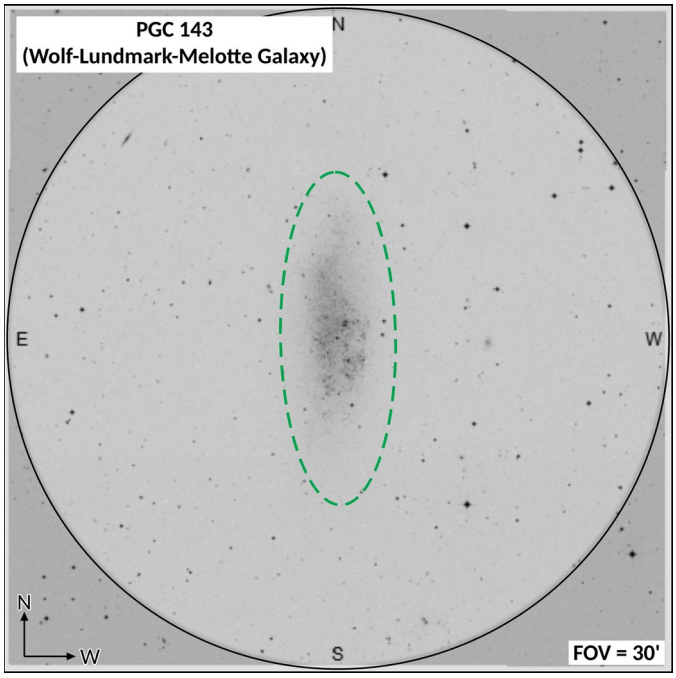
Constellation Guide

Object (Type)	Links	Gear	Aliases	Stats
66 Ceti (DS)		B, T	SAO-129752; HIP-10305; HR 650; HD 13612; 66 Cet; Σ-231; STF 231; ADS 1703; BD-03 336; WDS02128-0224; J021247.54-022337.; PPM184347; Sky2120092; TYC 4690-1110-1	**AB** | Mag=5.7 / 7.7 | Sep=16.8" | PA=235° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F8V / G1V | Color=orange / blue |
Mira (VS)	1	T	SAO-129825; HIP-10826; HR 681; HD 14386; o Cet; Omicron Ceti; 68 Ceti; 68 Cet; ADS 1778; BD -03 353; BU 1371; WDS 02193-0259; TYC 4693-1144-1	| Magnitude Range= 2.0 to 10.1 | Period=332d | Spec=M7IIIe | BV=+1.53 | Color=red |
NGC 908 (G)	1	T	NGC-908; UGCA 29; PGC 9057; MCG -4-6-35; ESO 545-11; ESO-LV 5450110; IRAS 02207-2127; 2MASS 02230456-2114018	| Mag=10.2 | Size=6.1'x2.7' | SB=21.9 | mBortle=5 | mApt=70mm | MC=SAB(s)c |
NGC 936 (G)	1	T	NGC-936; Darth Vader's Galaxy; Darth Vader's Starfighter; UGC 1929; MCG +00-07-017; PGC 9359; Levy-109; CGCG 388-18; SDSS 022737.44-010921.6; 2MASS 02273746-0109226	| Mag=10.2 | Size=4.4'x3.2' | SB=21.7 | mBortle=6 | mApt=60mm | MC=SB(rs)0+ |
HD 16115 (CS)		T	SAO-129989; HIP-12028; BD -10 513; TYC 5285-0003-1	| Mag=8.2 | Spec=C-H3II | BV=+1.21 | Color=orange |
Nu Ceti (DS)	1	T	SAO-110635; HIP-12093; HR 754; HD 16161; ν Cet; 78 Cet; Σ-281; STF 281; ADS 1971; BD+04 418; FK5 1072; WDS02359+0536; TYC 0052-1681-1	**AB** | Mag=5.0 / 9.1 | Sep=8.1" | PA=80° | mBortle=9 | mApt=60mm | RecMag=30x | Spec=G8III / F7V | Color=yellow / yellow-white |
Question Mark (AS)		B	Cosmic Question Mark; Cosmic ? Mark; Ref Star: SAO-110636 / HIP-12114	| Size=126'x42' | Stars=6 | Ref Star: SAO-110636 / HIP-12114 |
NGC 1042 (G)	1	T	NGC-1042; Levy-338; PGC 10122; MCG -2-7-54; IRAS 02379-0838; SDSS 024023.96-082600.7; SDSS 024023.97-082600.8; 2MASS 02402397-0826011	| Mag=11.0 | Size=3.9'x2.1' | SB=21.9 | mBortle=5 | mApt=102mm | MC=SAB(rs)cd |
NGC 1052 (G)	1	T	NGC-1052; PGC 10175; MCG -1-7-34; IRAS 02386-0828; 2MASS 02410480-0815209	| Mag=10.5 | Size=3.0'x2.1' | SB=21.1 | mBortle=7 | mApt=60mm | MC=E4 |
84 Ceti (DS)	1	T	SAO-130055; HIP-12530; HR 790; HD 16765; 84 Cet; Σ-295; STF 295; ADS 2046; BD-01 377; WDS02412-0042; TYC 4699-1214-1	**AB** | Mag=5.8 / 9.7 | Sep=3.9" | PA=301° | mBortle=9 | mApt=130mm | RecMag=60x | Period=3194y | Spec=F7V / K2V | Color=yellow-white / orange |

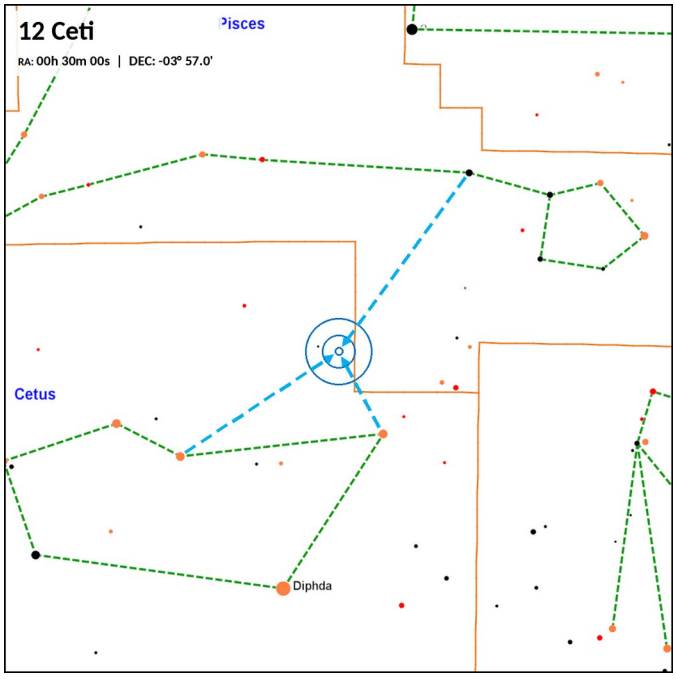
Object (Type)	Links	Gear	Aliases	Stats
Gamma Ceti (MS-3)	1	T	SAO-110707; HIP-12706; Kaffaljidhma; HR 804; HD 16970; γ Cet; Gam Cet; 86 Cet; Σ-299; STF 299; ADS 2080; BD+02 422; WDS02433+0314; TYC 0050-1721-1	**AB** | Mag=3.5 / 6.2 | Sep=1.9" | PA=299° | mApt=180mm | RecMag=130x | Period=914y | Spec=A2V / F4V | Color=white / yellow-white | **AC** | Mag=3.5 / 10.2 | Sep=843.1" | PA=306° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=A2V / K5V | Color=white / orange |
M77 Group				
Messier 77 (G)	1	T	M-77; NGC-1068; Cetus A; The Squid Galaxy; UGC 2188; PGC 10266; Arp 37; Levy-111; MCG 0-7-83; CGCG 388-98; IRAS 02401-0013; 2MASS 02424077-0000478	| Mag=8.9 | Size=7.1'x6.0' | SB=21.6 | mBortle=7 | mApt=50mm | MC=(R)SA(rs)b |
NGC 1055 (G)	1	T	NGC-1055; UGC 2173; PGC 10208; MCG 0-7-81; CGCG 388-95; IRAS 02391+0013; 2MASS 02414523+0026354	| Mag=10.6 | Size=7.6'x2.7' | SB=22.5 | mBortle=4 | mApt=114mm | MC=SBb |
NGC 1073 (G)	1	T	NGC-1073; UGC 2210; PGC 10329; MCG 0-8-1; CGCG 389-2; IRAS 02410+0109; IRAS 02411+0109; 2MASS 02434059+0122331	| Mag=11.0 | Size=4.9'x4.5' | SB=23.0 | mBortle=1 | mApt=300mm | MC=SB(rs)c |
94 Ceti (DS)	1	T	SAO-130355; HIP-14954; HR 962; HD 19994; 94 Cet; HJ 663; BD -01 457; ADS 2406; WDS 03128-0112; TYC 4708-1423-1	**AB** | Mag=5.1 / 11.0 | Sep=2.3" | PA=195° | mApt=300mm | RecMag=100x | Period=1420y | Spec=F8V / M3V | Color=yellow-white / red |

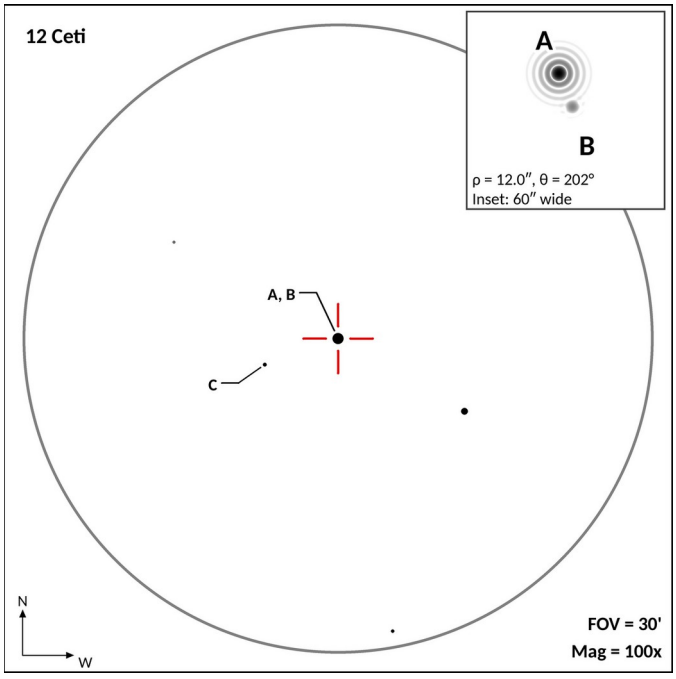
PGC 143 (G || Mag=11.0 | Size=11.6'x4' | SB=23.8 | MC=IB(s)m |) The Wolf-Lundmark-Melotte Galaxy is a barred irregular dwarf on the far edge of the Local Group, about 3.2 million light years away. Isolated from other galaxies, it has kept an unusually pristine population of stars and is still forming new ones. Its low surface brightness calls for low power and the darkest skies.



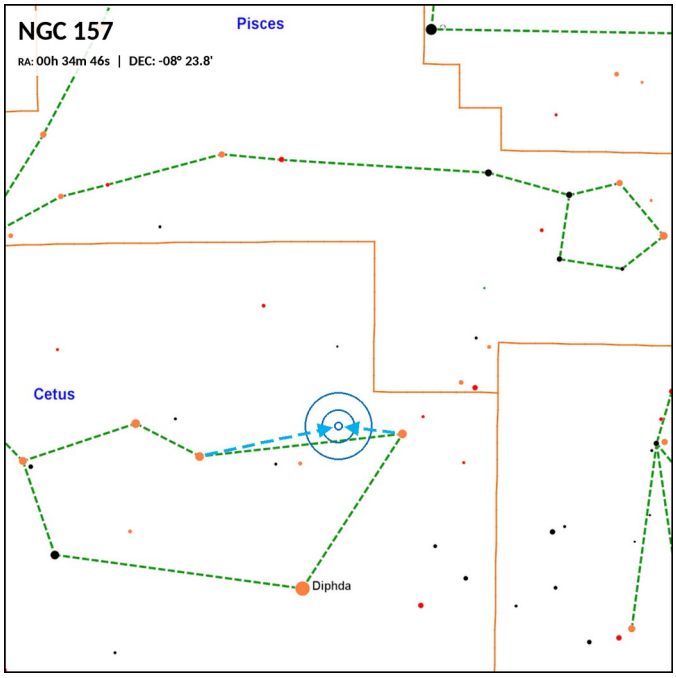


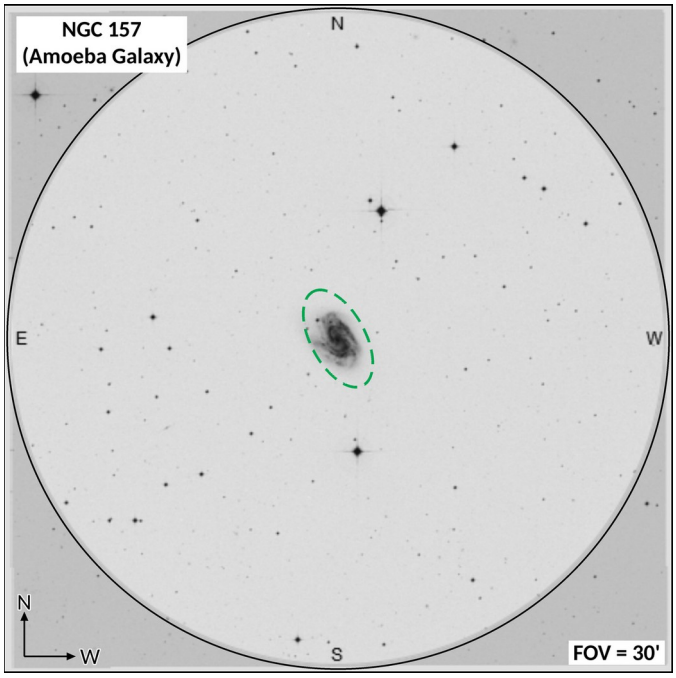
12 Ceti (MS-3 || **AB** | Mag=5.9 / 10.2 | Sep=12" | PA=202° | mBortle=9 | mApt=50mm | RecMag=20x | Spec=M0III | Color=yellow / blue || **AC** | Mag=5.9 / 11.0 | Sep=223.7" | PA=110° | mBortle=9 | mApt=70mm | RecMag=10x | Spec=M0III | Color=yellow |) Located 570 light years away. The primary is a red giant with a luminosity about 390 times that of our Sun's. The wide AC pair is a chance alignment (optical) that suits low power; whether the closer AB pair is bound is uncertain.



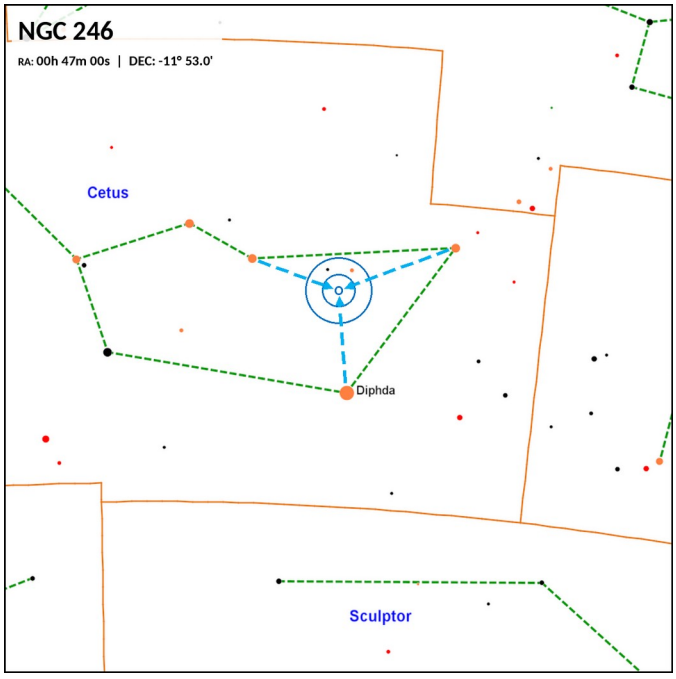


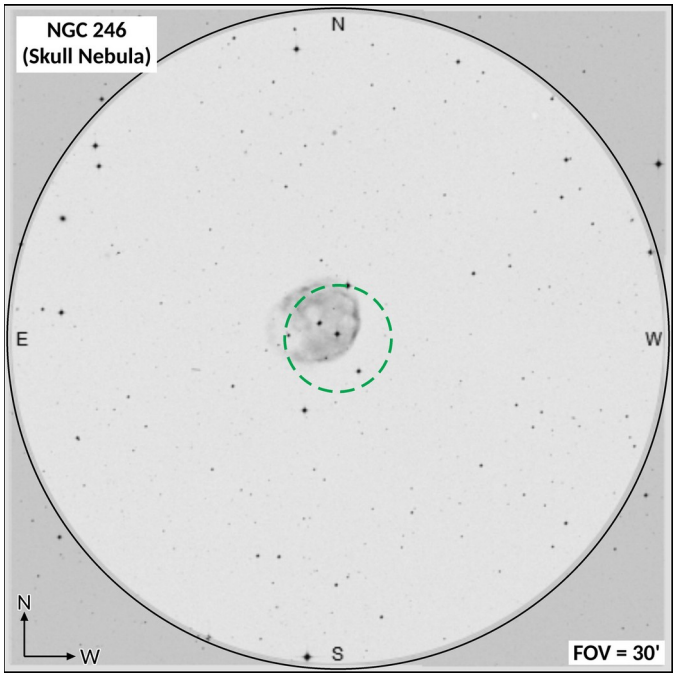
NGC 157 (G || Mag=10.4 | Size=3.7'x1.9' | SB=21.1 | mBortle=7 | mApt=60mm | MC=SAB(rs)bc |) A weakly barred spiral whose symmetric inner arms break up into patchy (flocculent) arms in its outer parts. It sits between two fairly bright stars and can be seen from suburban skies with a moderate-sized telescope.



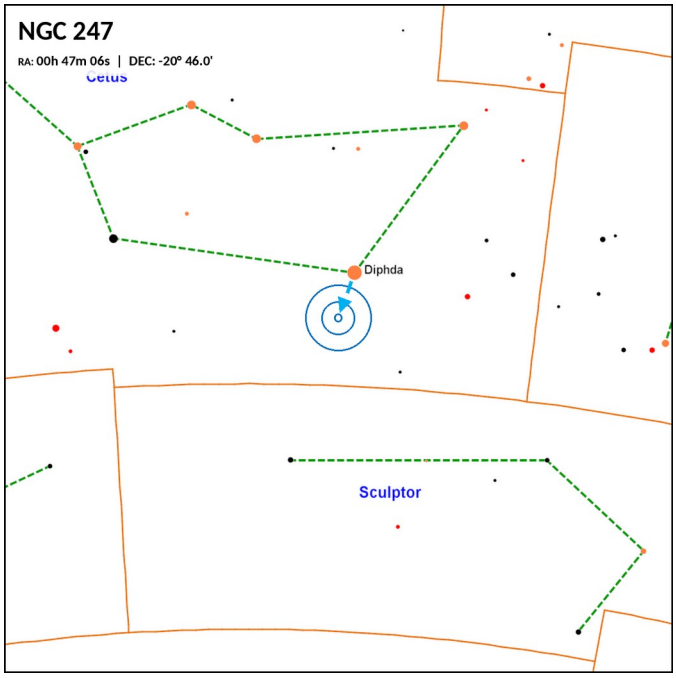


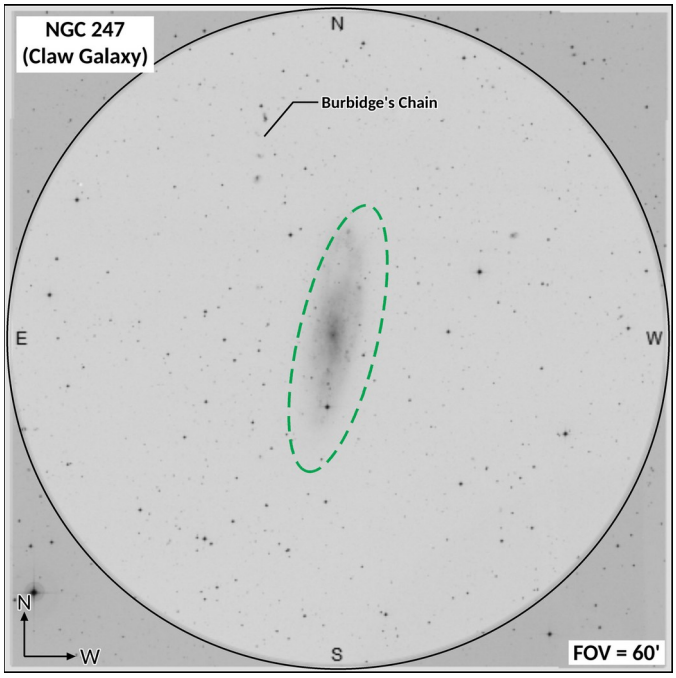
NGC 246 (PN || Mag=10.9 | Size=3.8' | SB=22.4 | mBortle=4 | mApt=130mm | MC=Elliptical |) Known as the Skull Nebula, and to some amateurs as the Pac-Man Nebula for the pattern of its stars, this planetary nebula was the first known to have a triple star at its center: a 12th-magnitude white dwarf with two companions. An OIII filter helps bring out its faint, patchy shell.



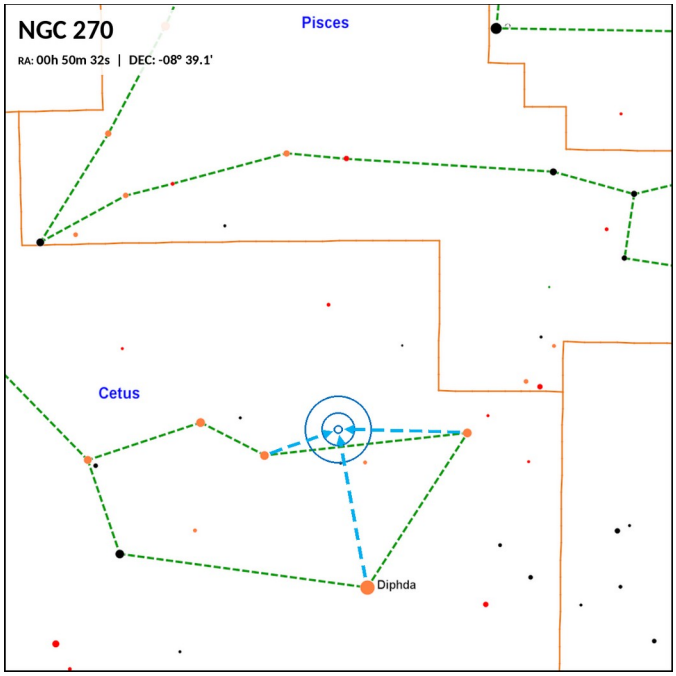


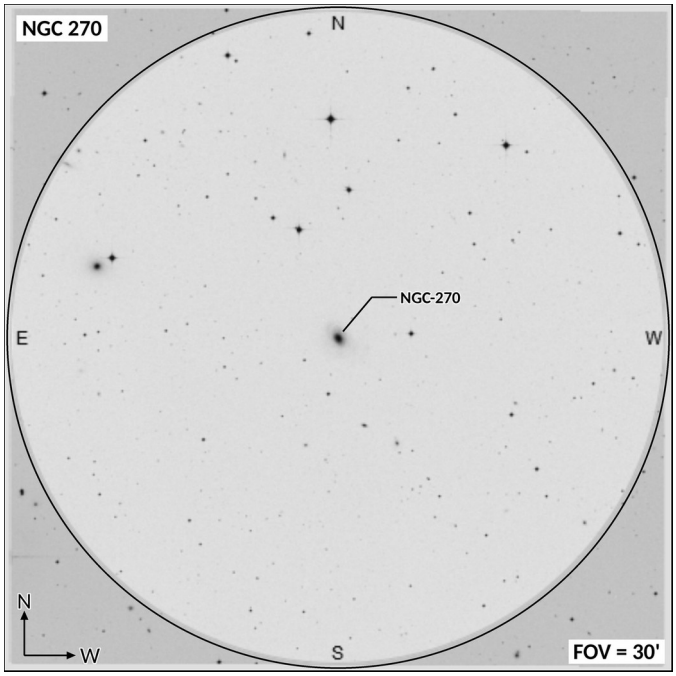
NGC 247 (G || Mag=9.2 | Size=19'x5.5' | SB=22.9 | mBortle=4 | mApt=102mm | MC=SAB(s)d |) The Claw Galaxy, a member of the Sculptor Group, lies about 11 million light years away and is 70,000 to 93,000 light years across. An unusually large void on one side of its disk holds older stars but no young blue ones. Burbidge's Chain, a line of five background galaxies, lies about 20' to the northeast in the same field.



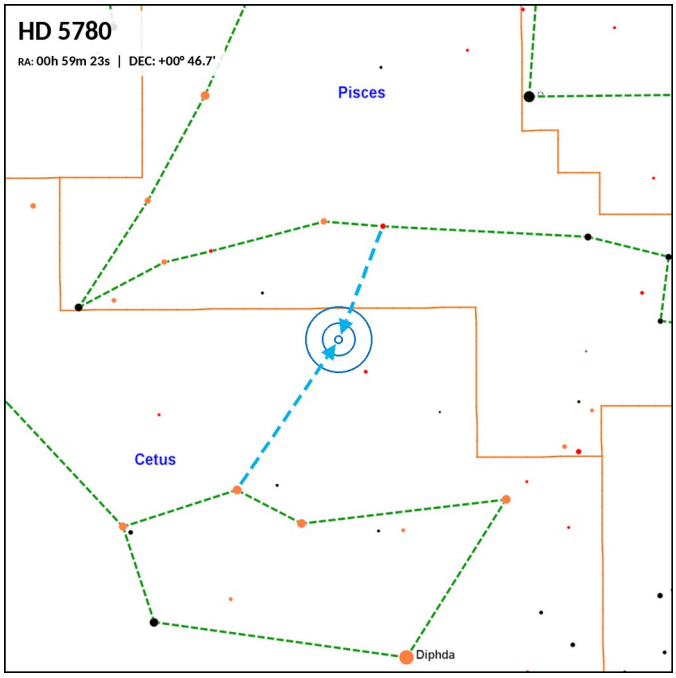


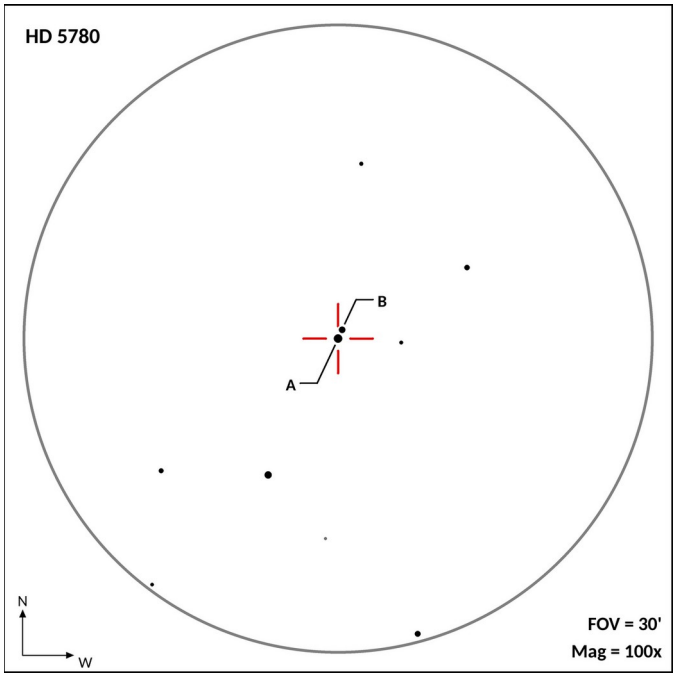
NGC 270 (G || Mag=12.9 | Size=1.8'x1.2' | SB=22.4 | mApt=350mm | MC=S0-a |) A small lenticular galaxy (a disk galaxy without spiral arms) about 170 million light years away. Its faint, compact glow needs a large telescope and dark skies.



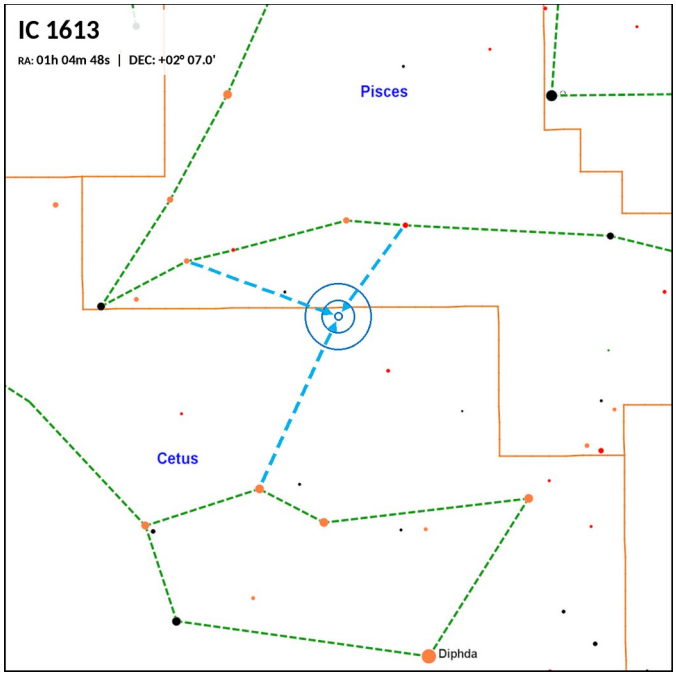


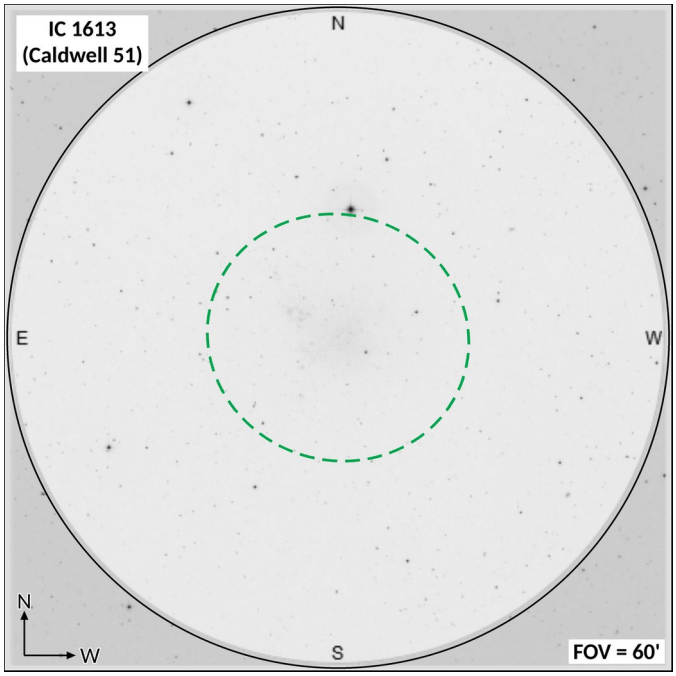
HD 5780 (DS || **AB** | Mag=7.8 / 9.1 | Sep=29.9" | PA=339° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=K3/5III | Color=yellow / blue |) Located 1,600 light years away. The primary is an orange giant with a luminosity about 360 times that of our Sun's, approaching us at about 104 km per second, unusually fast for a star. The pair is optical, a chance alignment of stars at different distances; it is an easy split in a small telescope.



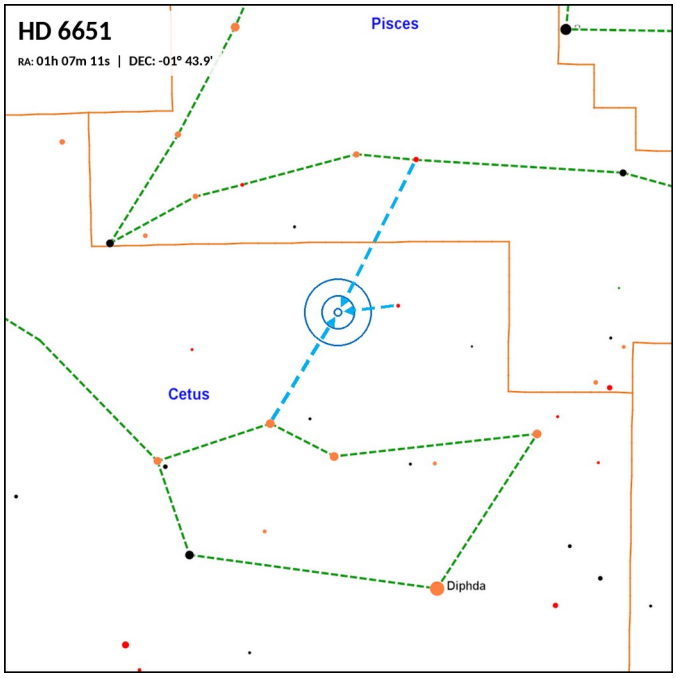


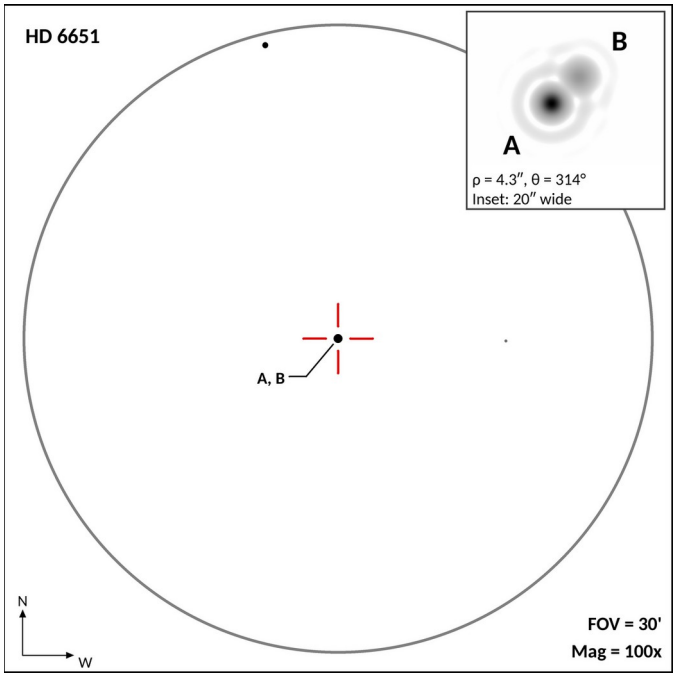
IC 1613 (G || Mag=9.3 | Size=18.3'x17.1' | SB=24.2 | MC=IB(s)m |) A dwarf irregular galaxy on the outskirts of the Local Group, about 2.4 million light years away, used to calibrate the Cepheid variable distance scale. Its very low surface brightness makes it a challenge: use low power, a wide field and the darkest skies.



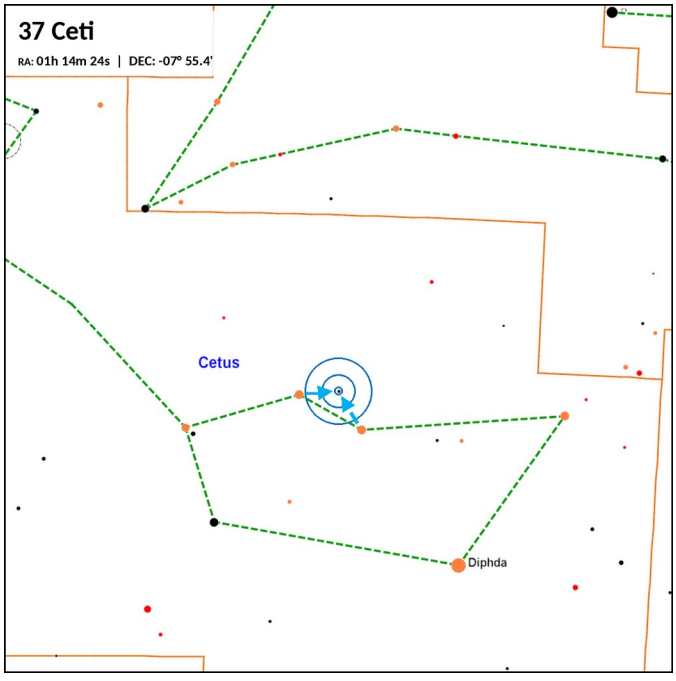


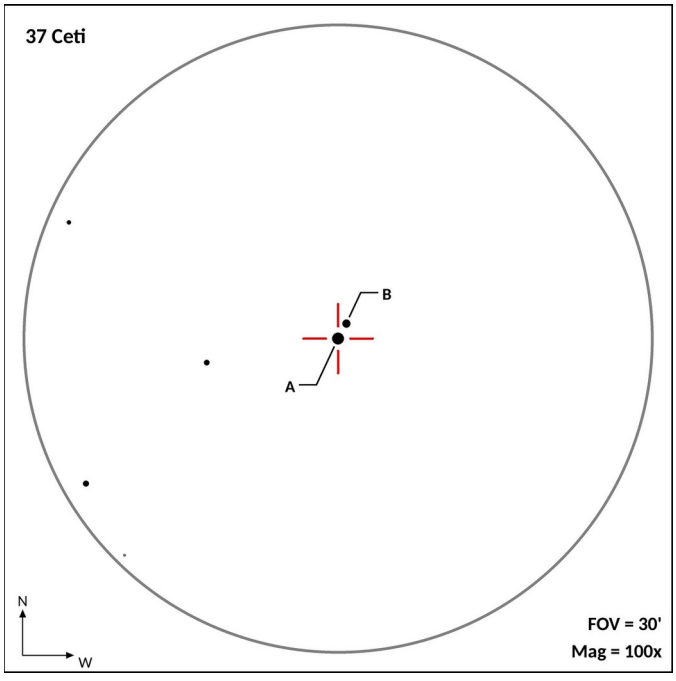
HD 6651 (DS || **AB** | Mag=7.4 / 8.6 | Sep=4.3" | PA=314° | mBortle=9 | mApt=50mm | RecMag=60x | Spec=F9V / G3V | Color=yellow-white / yellow |) Located 160 light years away. Both stars are Sun-like main-sequence stars, the primary a little hotter with a luminosity about 2.6 times that of our Sun's. The two stars form a physical pair.



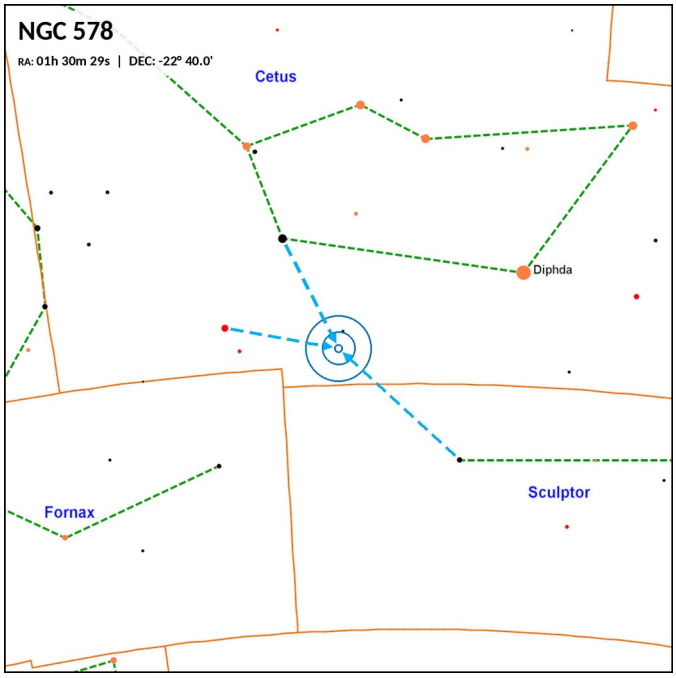


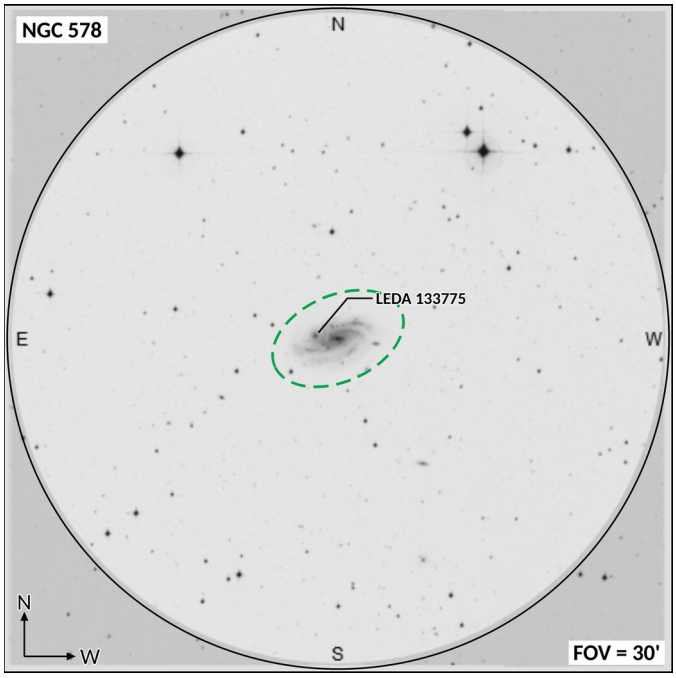
37 Ceti (DS || **AB** | Mag=5.2 / 7.9 | Sep=49" | PA=331° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F5V / G9V | Color=yellow-white / yellow |) Located 76 light years away. The primary is a yellow-white main-sequence star with a luminosity about 4.3 times that of our Sun's. The wide pair is physical and easy in any telescope.



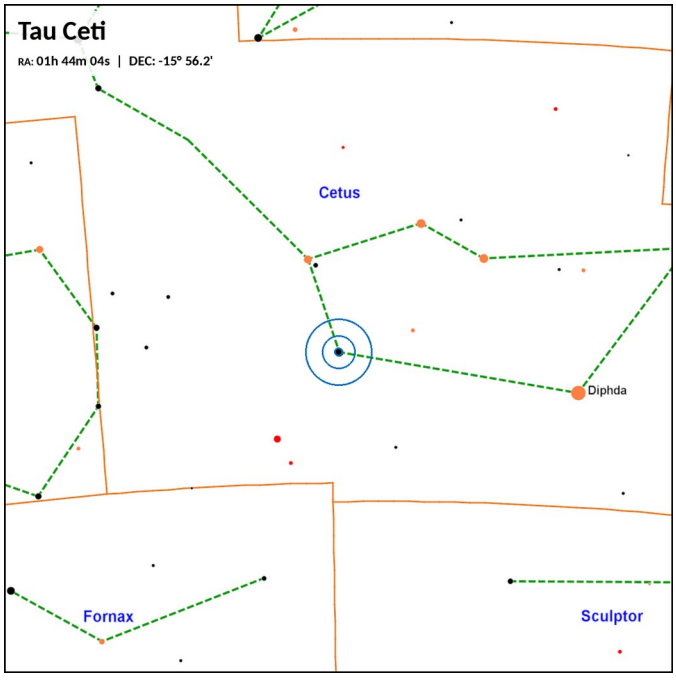


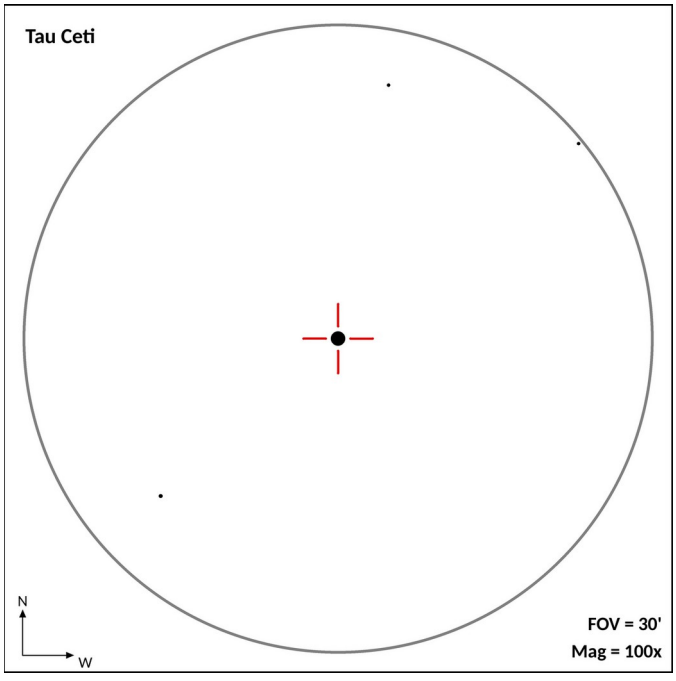
NGC 578 (G || Mag=11.5 | Size=4.8'x3' | SB=23.0 | mApt=400mm | MC=SAB(rs)c |) A three-armed barred spiral about 60 million light years away and roughly 110,000 light years across, larger than the Milky Way. Its low surface brightness calls for a large telescope and dark skies. The small galaxy LEDA 133775, 1' east of its core, has no measured redshift, so it may be a companion or a background galaxy.



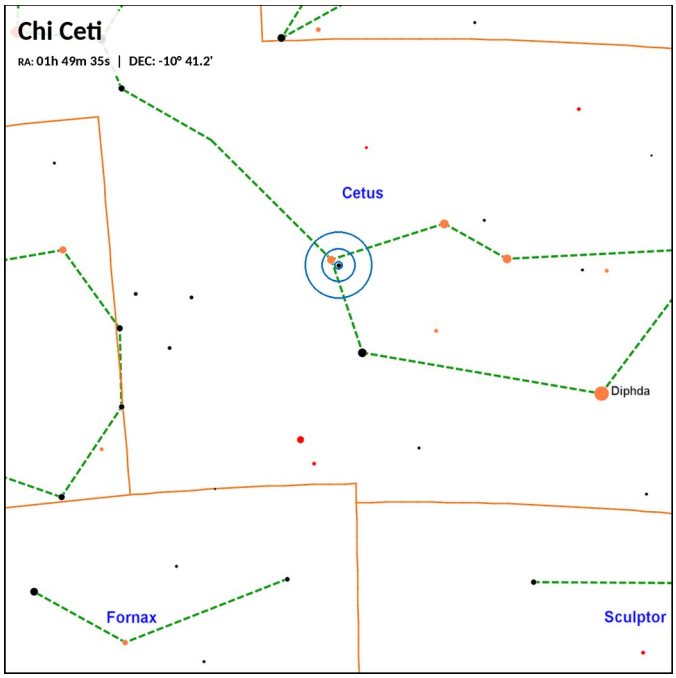


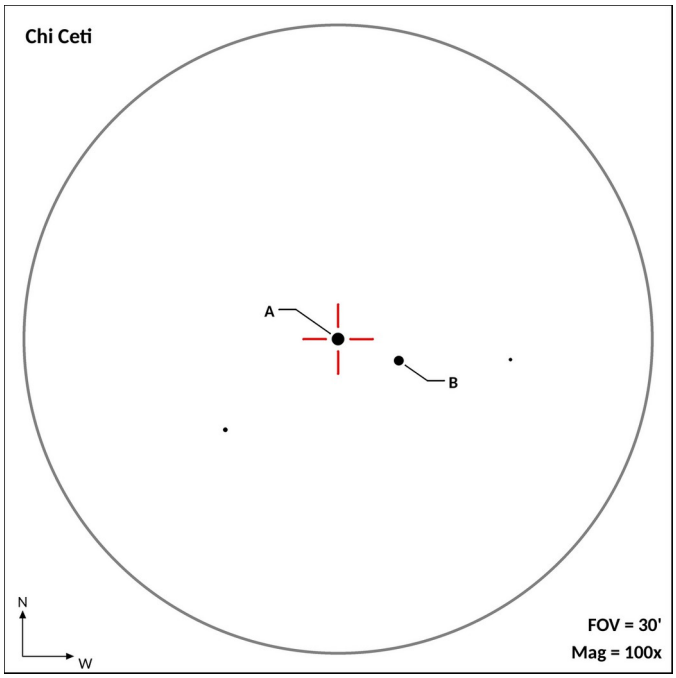
Tau Ceti (S || Mag=3.5 | Spec=G8V | Color=yellow |) The nearest single Sun-like (G-type) star, just under 12 light years away, with a mass about 0.78 times that of our Sun's. It is surrounded by about ten times as much dust as our Solar System and is a long-standing target in the search for planets and for extraterrestrial intelligence (SETI).



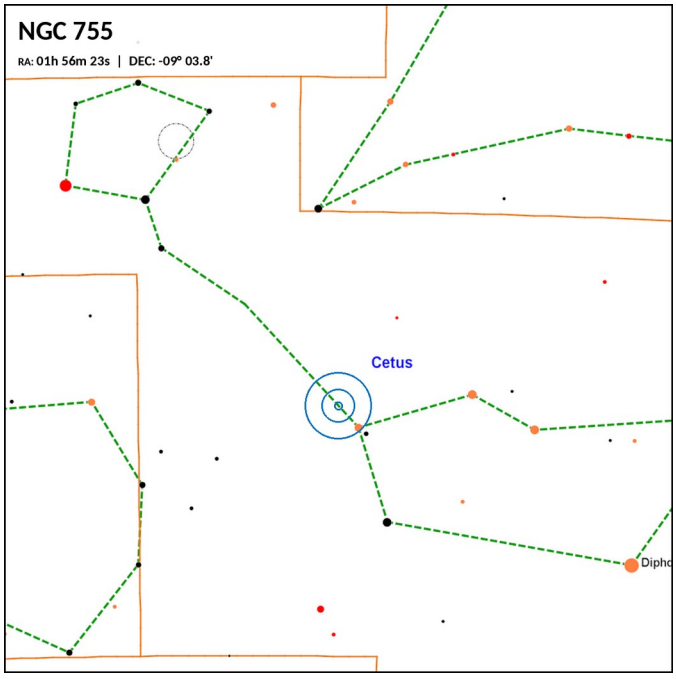


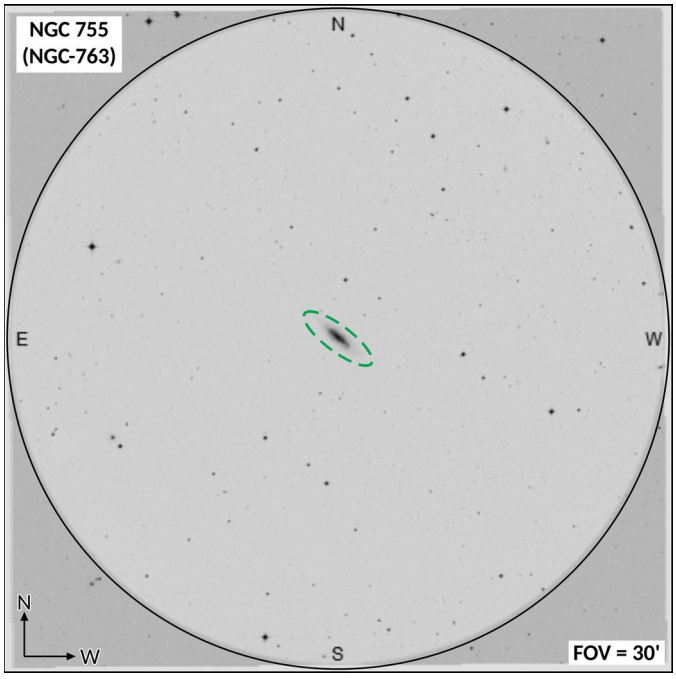
Chi Ceti (DS || **AB** | Mag=4.7 / 6.8 | Sep=184.1" | PA=250° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F0V / G3V | Color=yellow-white / yellow |) Chi Ceti and its companion EZ Ceti form a true pair: both share the same motion through space (common proper motion) and lie about 77 light years away. EZ Ceti is a BY Draconis variable (a spotted star that varies as it rotates) with a much fainter companion of its own 6.7" away. The wide pair is an easy binocular split.



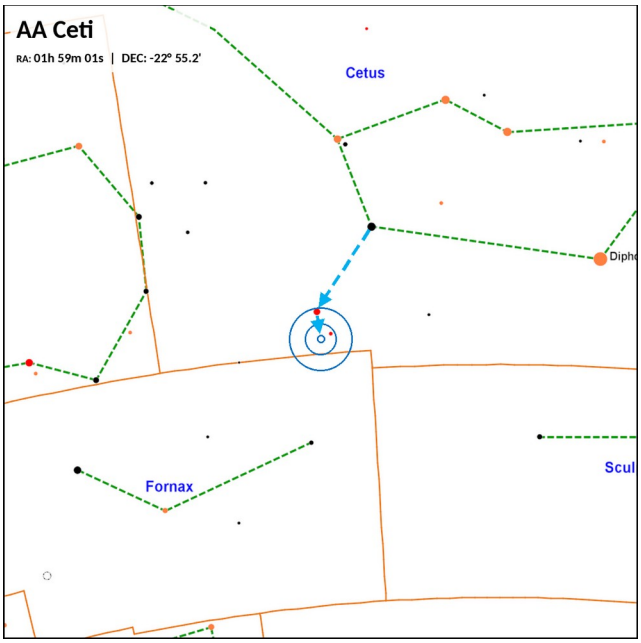


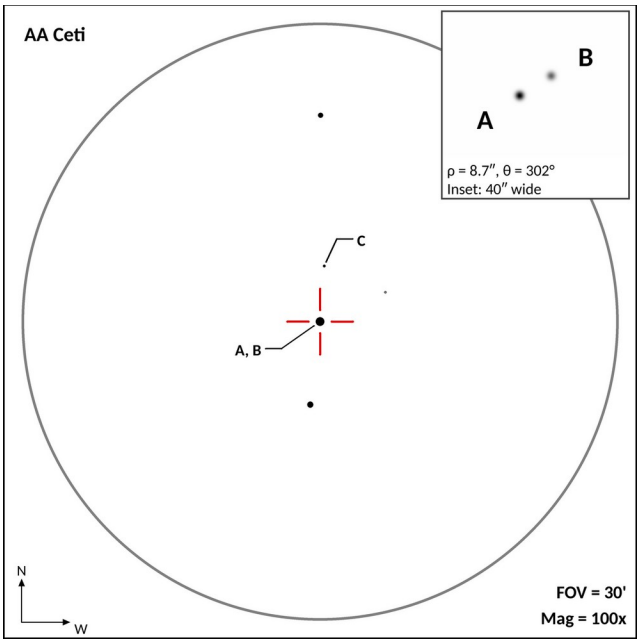
NGC 755 (G || Mag=12.6 | Size=2.9'x0.9' | SB=22.3 | mApt=250mm | MC=SBcd |) A small, steeply inclined spiral about 65 million light years away. Its low surface brightness makes it a challenge for a medium to large telescope.



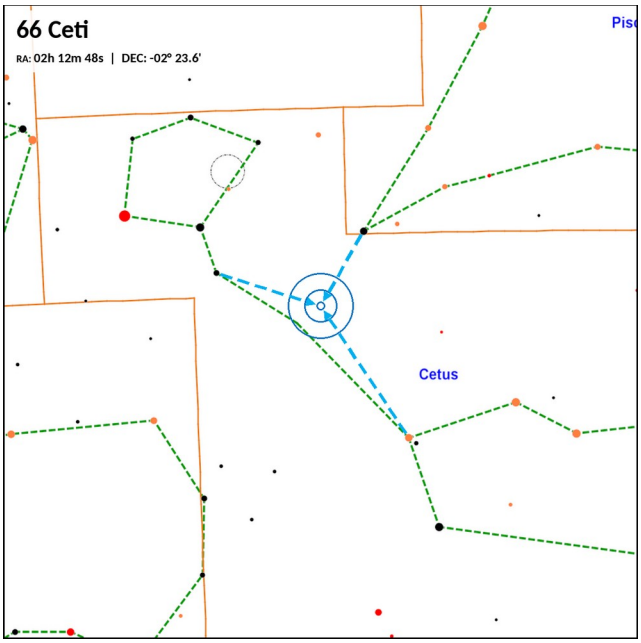


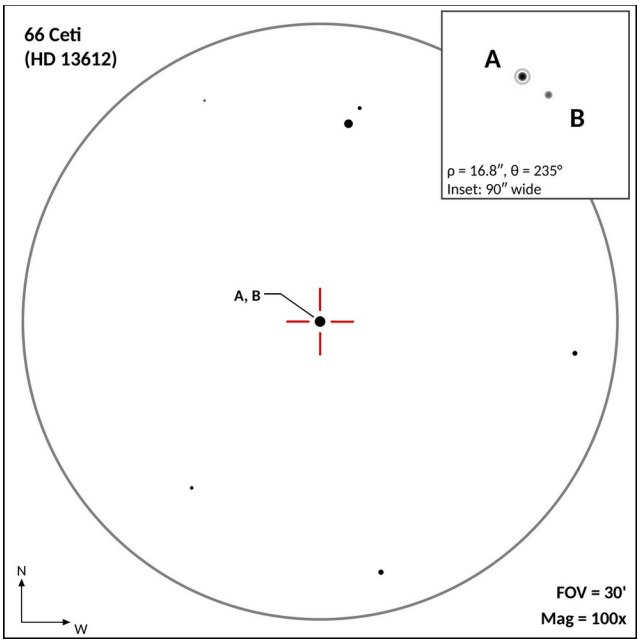
AA Ceti (MS-3 || **AB** | Mag=7.3 / 7.6 | Sep=8.7" | PA=302° | mBortle=9 | mApt=50mm | RecMag=30x | Magnitude Range= 6.2 to 6.7 | Period=0.5d | Spec=A7/8V / G0 | Color=white / yellow || **AC** | Mag=7.3 / 11.8 | Sep=167.5" | PA=356° | mBortle=9 | mApt=102mm | RecMag=10x | Spec=A7/8V / K | Color=white / orange |) Located 280 light years away. The primary is an eclipsing contact binary, two stars sharing one envelope. AB splits easily at low power but may not be bound; C is a physical member of this system.



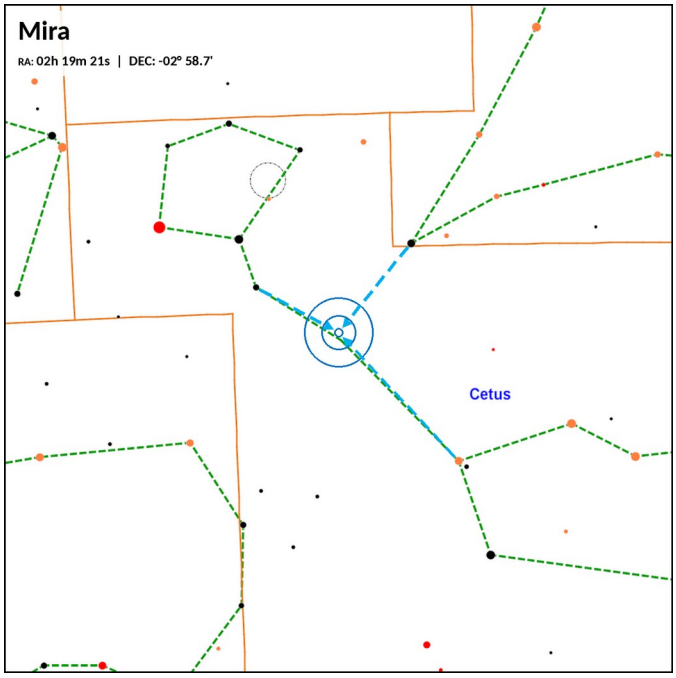


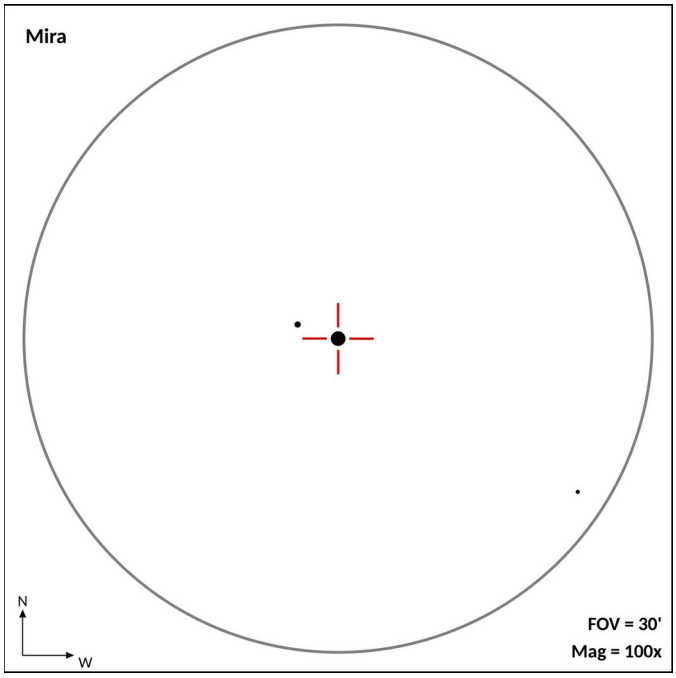
66 Ceti (DS || **AB** | Mag=5.7 / 7.7 | Sep=16.8" | PA=235° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=F8V / G1V | Color=orange / blue |) Located 130 light years away. A strongly contrasting showcase pair (Haas), orange and blue on the RASC colored-double list. The primary is itself a close spectroscopic binary (a pair detected only in its spectrum) with an orbit of about 95 days. The visible pair is optical.



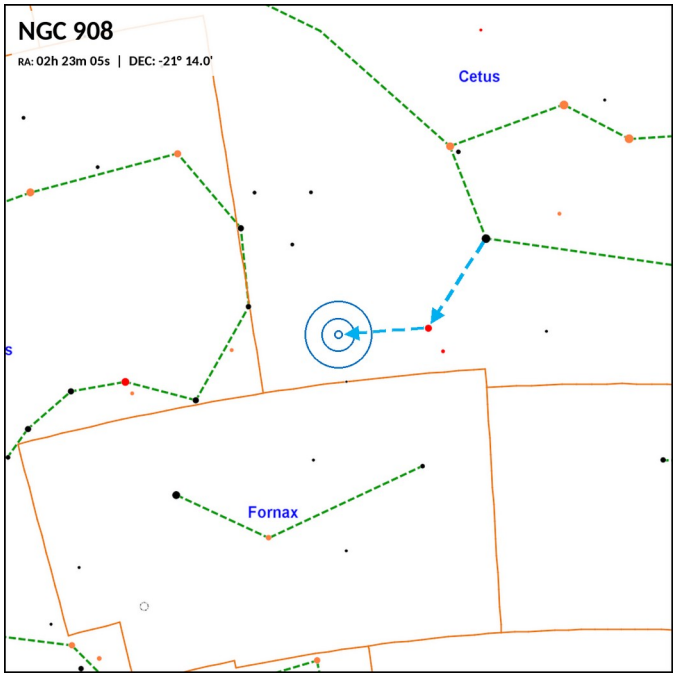


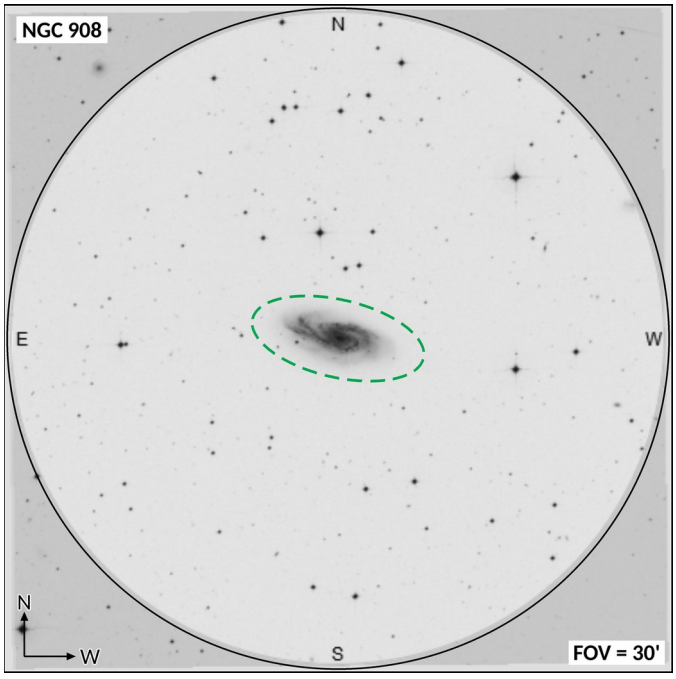
Mira (VS || Magnitude Range= 2.0 to 10.1 | Period=332d | Spec=M7IIIe | BV=+1.53 | Color=red |) The prototype of the Mira variables: a red giant with a diameter 330 to 400 times that of our Sun's that swells and shrinks as it pulsates. A white dwarf companion, Mira B, orbits it about every 500 years and will next pass closest around 2286; in ultraviolet light Mira trails a tail of shed gas 13 light years long.



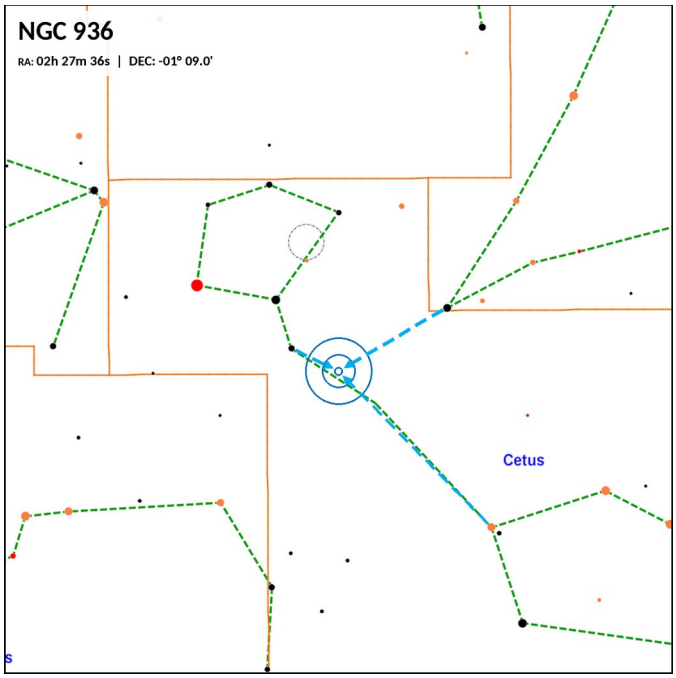


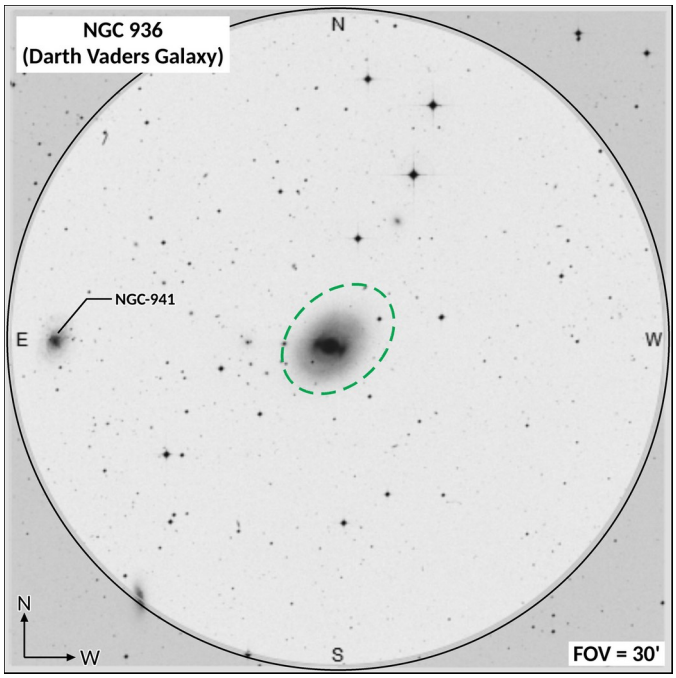
NGC 908 (G || Mag=10.2 | Size=6.1'x2.7' | SB=21.9 | mBortle=5 | mApt=70mm | MC=SAB(s)c |) A starburst spiral and the main galaxy of its own small group, about 56 million light years away. Two of its three spiral arms are oddly shaped, and young star clusters dot all three, signs of a close encounter with another galaxy that is no longer seen. NGC 908's bright core may be visible in small telescopes.



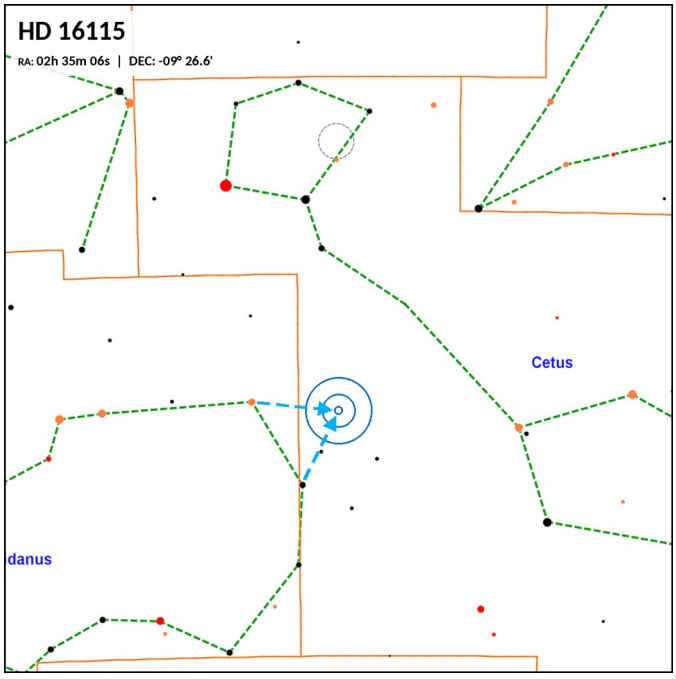


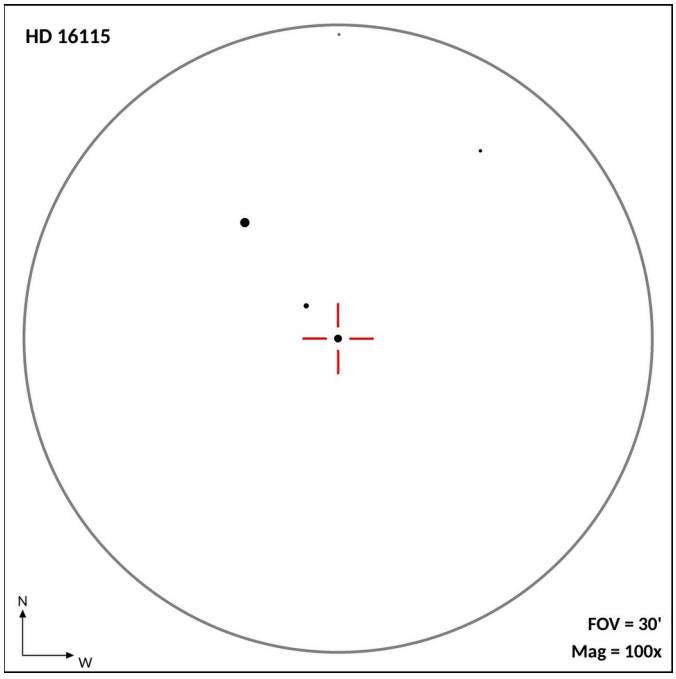
NGC 936 (G || Mag=10.2 | Size=4.4'x3.2' | SB=21.7 | mBortle=6 | mApt=60mm | MC=SB(rs)0+ |) Nicknamed Darth Vader's Galaxy for the starfighter-like shape of its bright bar, nucleus and outer ring, this barred lenticular galaxy lies about 60 million light years away. Its smooth, stable disk shows no spiral structure. The spiral NGC 941, 12.6' to the east in the same field, is a true neighbor in the small NGC 936 group, though the two are not interacting.



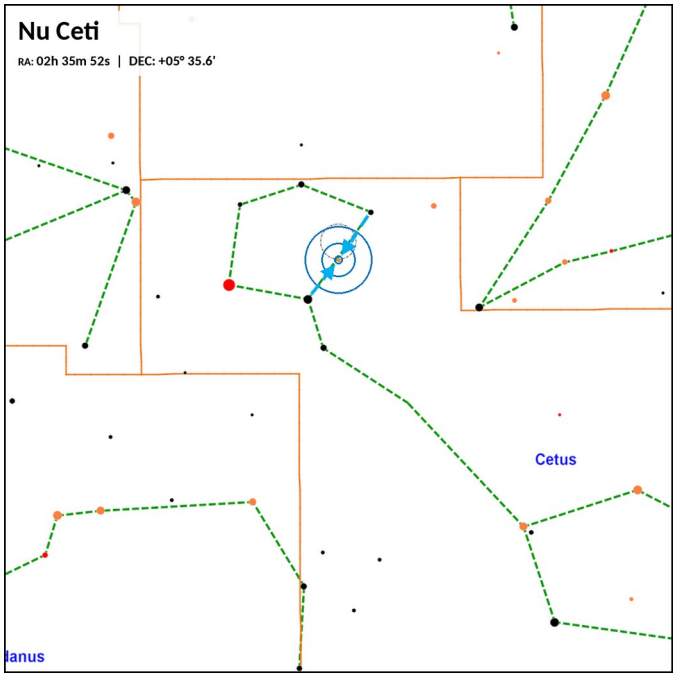


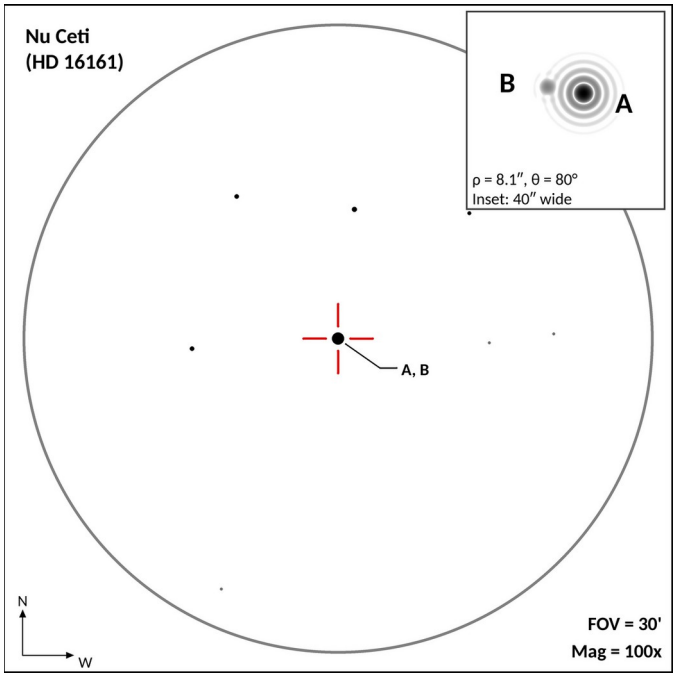
HD 16115 (CS || Mag=8.2 | Spec=C-H3II | BV=+1.21 | Color=orange |) Located 1,300 light years away. A CH star, a rare type of carbon star from the older population of the galactic halo, with a luminosity about 75 times that of our Sun's. BV=+1.21 indicating a color of Orange.



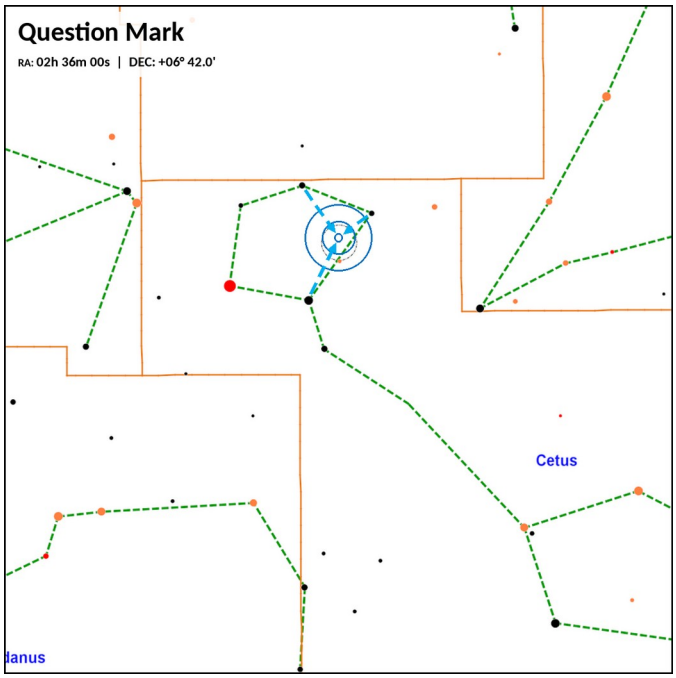


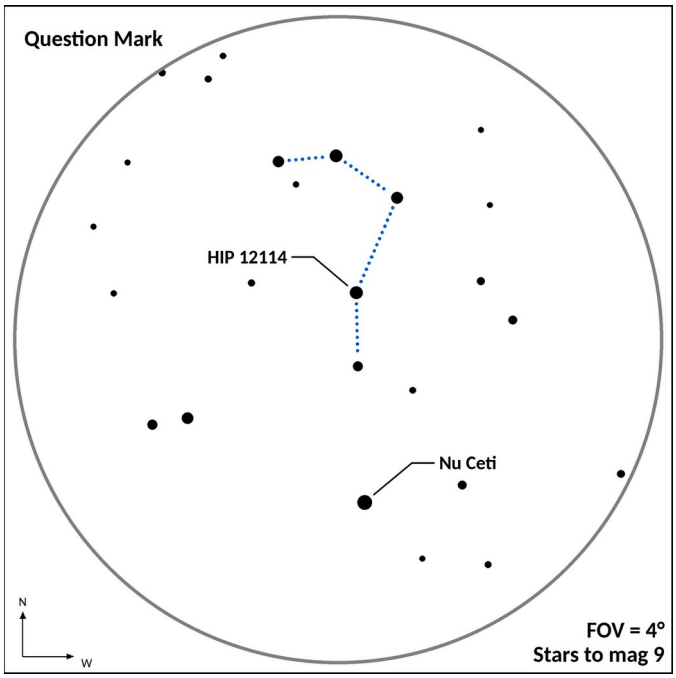
Nu Ceti (DS || **AB** | Mag=5.0 / 9.1 | Sep=8.1" | PA=80° | mBortle=9 | mApt=60mm | RecMag=30x | Spec=G8III / F7V | Color=yellow / yellow-white |) The primary is a yellow giant in a helium-burning stage (the horizontal branch) with an unseen companion in a 2-year orbit; the visible companion shares its motion through space. The system is thought to belong to the Ursa Major stream, loosely tied to the Ursa Major Moving Group.



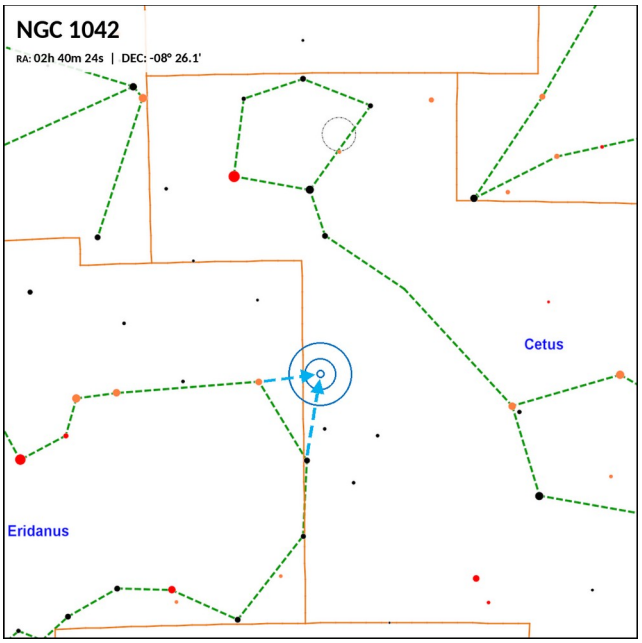


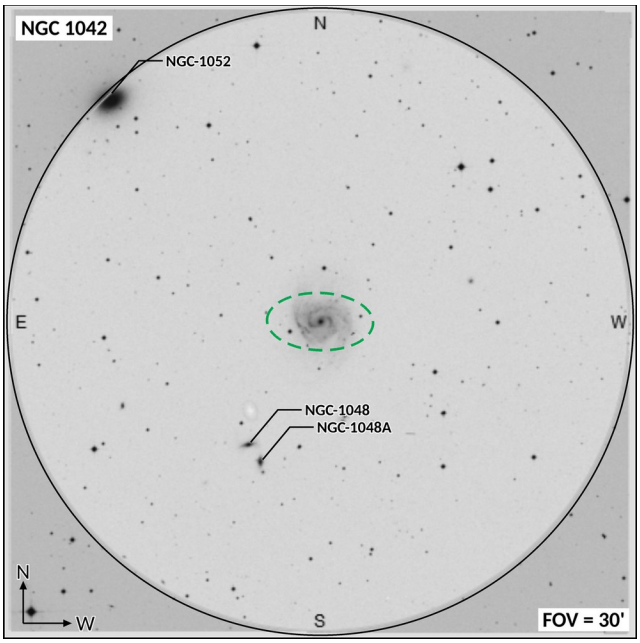
Question Mark (AS || Size=126'x42' | Stars=6 | Ref Star: SAO-110636 / HIP-12114 |) A curving chain of stars shaped like a question mark, best seen in binoculars or a finder.



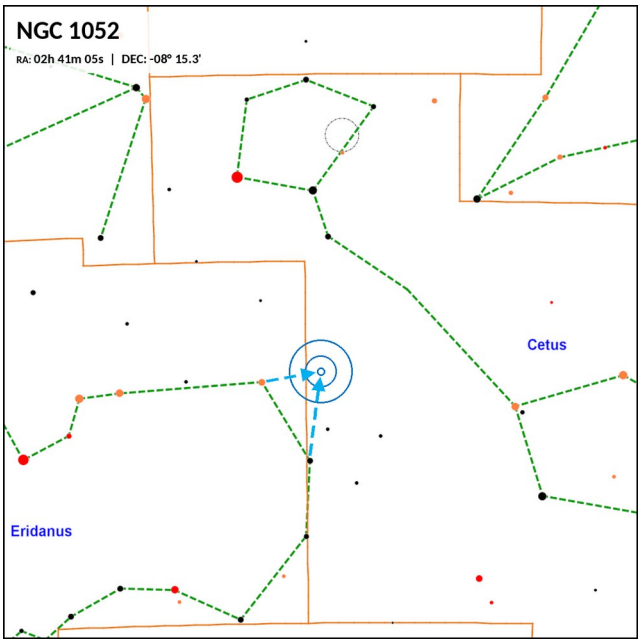


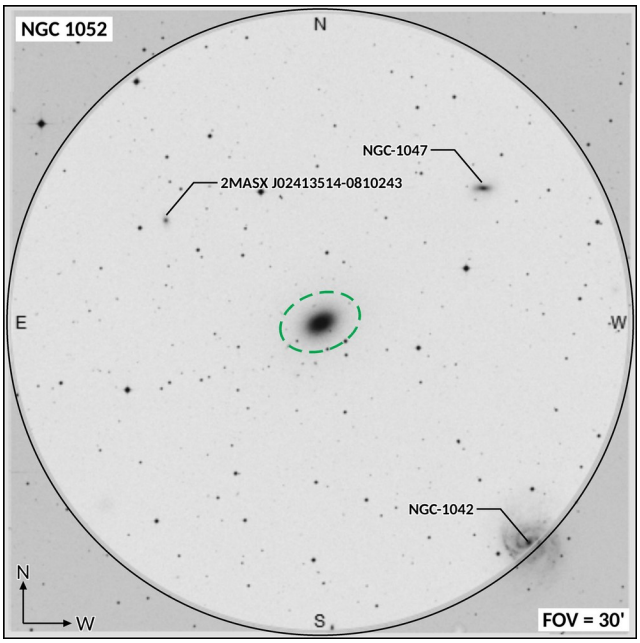
NGC 1042 (G || Mag=11.0 | Size=3.9'x2.1' | SB=21.9 | mBortle=5 | mApt=102mm | MC=SAB(rs)cd |) A face-on spiral with no central bulge and long, loosely wound arms that need dark skies to view. It hosts an intermediate-mass black hole at its center. NGC 1052, 15' northeast at the edge of the view, has a similar redshift, but NGC 1042's distance is disputed, so they may not be neighbors; NGC 1048 and NGC 1048A, 7' southeast, are background galaxies about 540 million light years away.



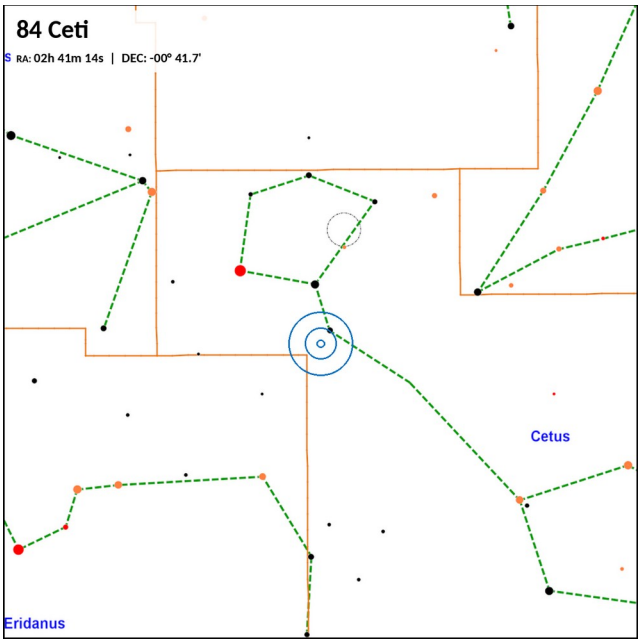


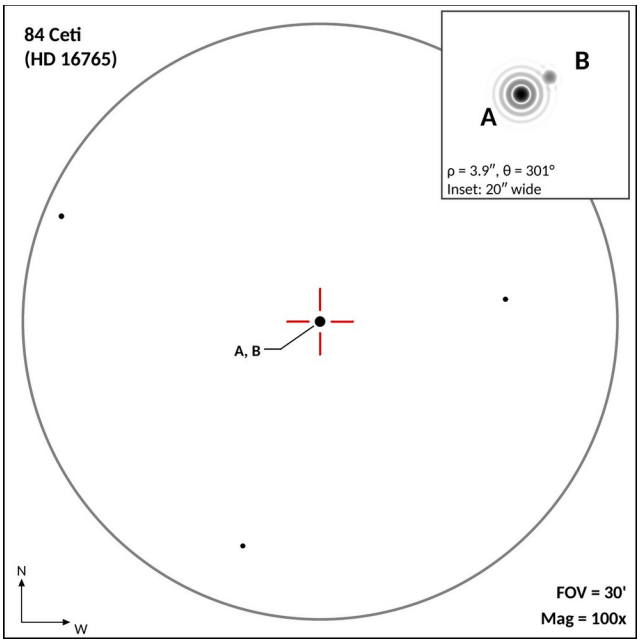
NGC 1052 (G || Mag=10.5 | Size=3.0'x2.1' | SB=21.1 | mBortle=7 | mApt=60mm | MC=E4 |) An elliptical galaxy about 63 million light years away with an active nucleus (a LINER) that launches two small jets; its stars and gas rotate about different axes, a sign of a merger about a billion years ago. NGC 1047 (10' northwest) and 2MASX J02413514-0810243 (9' northeast) are fellow group members in the view; NGC 1042 (15' southwest), whose distance is disputed, may or may not be a companion.



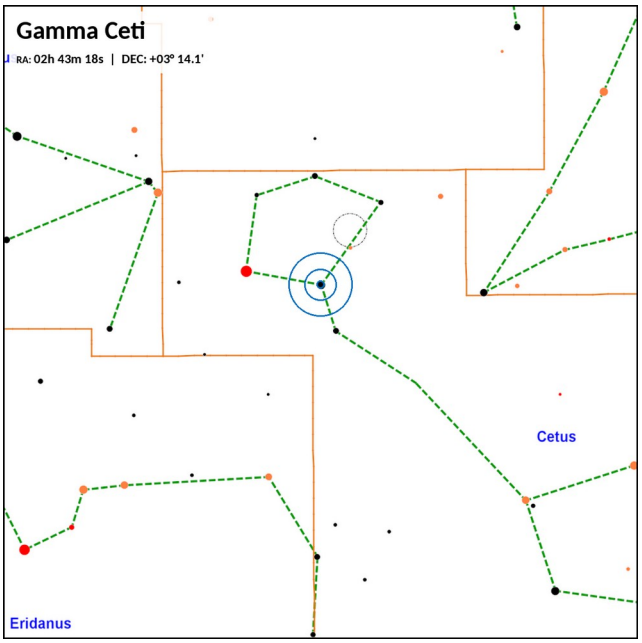


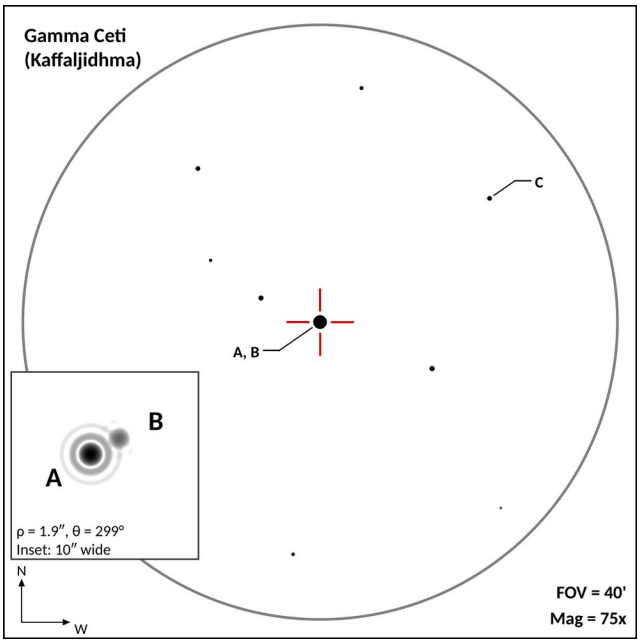
84 Ceti (DS || **AB** | Mag=5.8 / 9.7 | Sep=3.9" | PA=301° | mBortle=9 | mApt=130mm | RecMag=60x | Period=3194y | Spec=F7V / K2V | Color=yellow-white / orange |) The primary is a Sun-like star about twice as luminous as our Sun; its fast spin and X-ray activity suggest a young age, though estimates range from under a billion to 2.1 billion years. The two stars are at least 75 AU apart and their orbit is only preliminary.



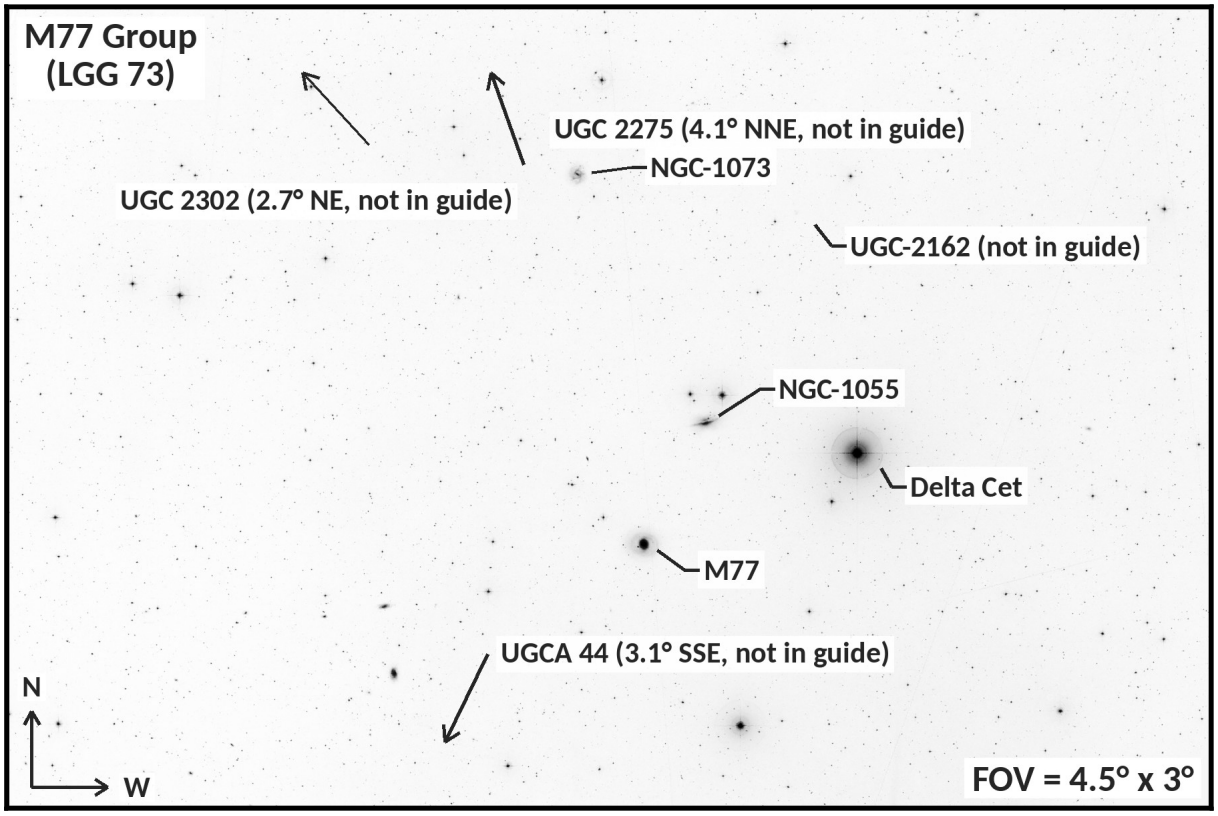


Gamma Ceti (MS-3 || **AB** | Mag=3.5 / 6.2 | Sep=1.9" | PA=299° | mApt=180mm | RecMag=130x | Period=914y | Spec=A2V / F4V | Color=white / yellow-white || **AC** | Mag=3.5 / 10.2 | Sep=843.1" | PA=306° | mBortle=9 | mApt=50mm | RecMag=10x | Spec=A2V / K5V | Color=white / orange |) Kaffaljidhma, from the Arabic for "the cut-short hand", is a white star in the Ursa Major stream. Its close, unequal companion makes this a demanding split; the two will next pass closest around 2047. The wide C star is also a physical member.





M77 Group



The M77 Group contains Messier 77, NGC 1055 and NGC 1073.

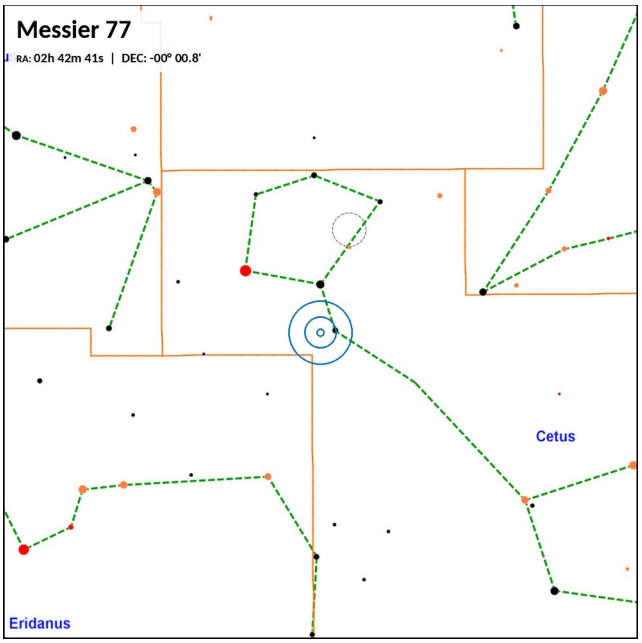
The M77 Group, listed as LGG 73 in the Lyon Groups of Galaxies, is a small group of at least seven galaxies. Messier 77 and the edge-on spiral NGC 1055 are its two largest members and form a pair; the others are the barred spiral NGC 1073 and four small irregular galaxies, UGC 2162, UGC 2275, UGC 2302 and UGCA 44. The four dwarfs shine at only magnitude 15 to 16, well beyond most visual telescopes, so they are marked on the map but are not guide targets.

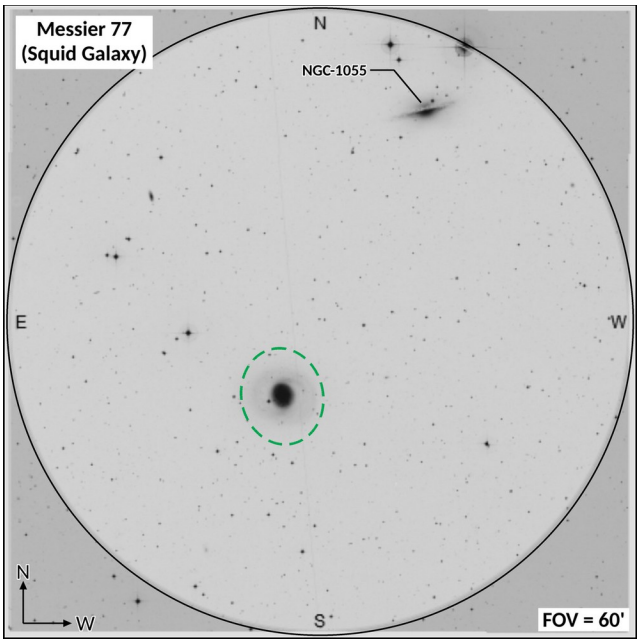
All seven galaxies recede from us at nearly the same speed, about 1,000 to 1,200 km/s, which is what ties them together as a group. Their distances are less certain: published values for Messier 77 range from about 35 to 47 million light years, while estimates from the redshifts of NGC 1055 and NGC 1073 give about 52 and 55 million light years. Messier 77 and NGC 1055 are at least 300,000 light years apart.

The pair has probably interacted in the past. The warped, knotty dust lane of NGC 1055 and its unusually active star formation, and the faint outer ring of stars around Messier 77, are thought to be signs of a past encounter.

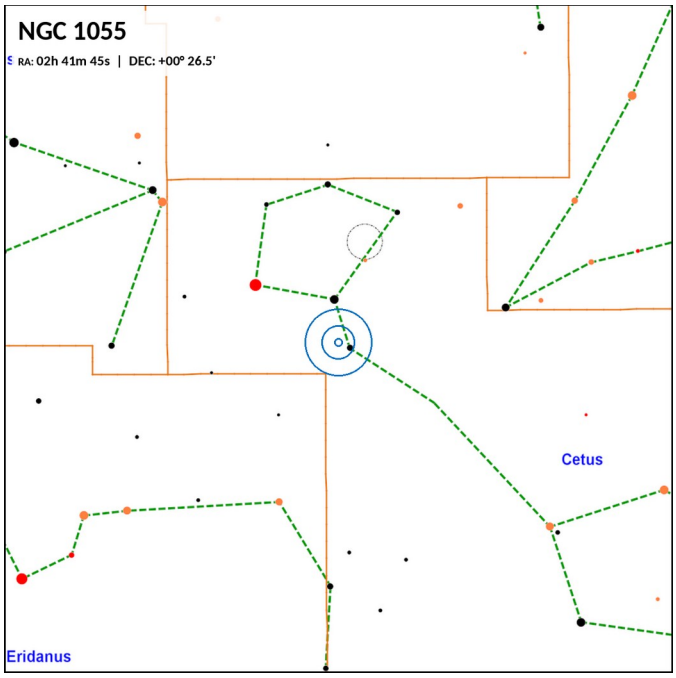
Messier 77 and NGC 1055 lie half a degree apart and share a low-power field just east of Delta Ceti; NGC 1073 lies about 1.4° north of Messier 77. All three are guide targets.

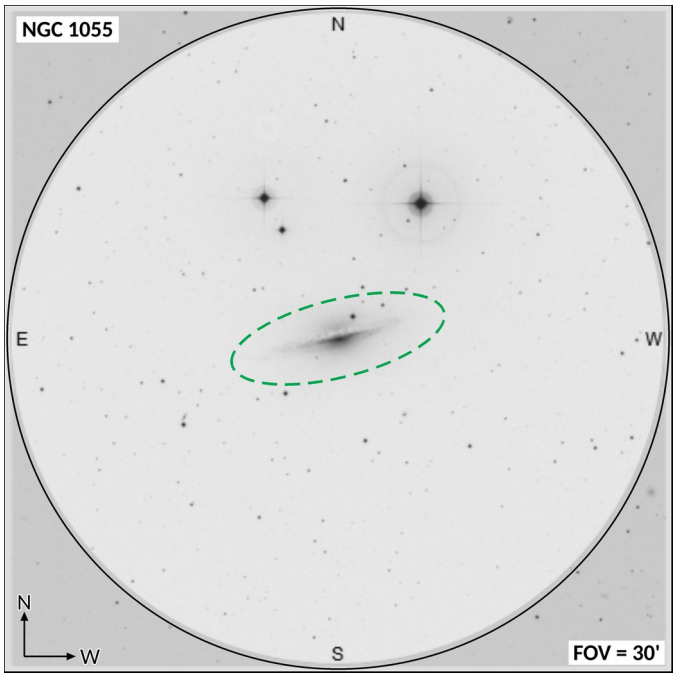
Messier 77 (G || Mag=8.9 | Size=7.1'x6.0' | SB=21.6 | mBortle=7 | mApt=50mm | MC=(R)SA(rs)b |) The Squid Galaxy is one of the brightest and nearest Seyfert galaxies (spirals with an intensely bright, active nucleus), about 35 million light years away and 90,000 light years across, close to the size of the Milky Way. Its brilliant core shows easily in small telescopes. The edge-on spiral NGC 1055 lies about half a degree to the northwest in the same low-power field. Member of M77 Group.



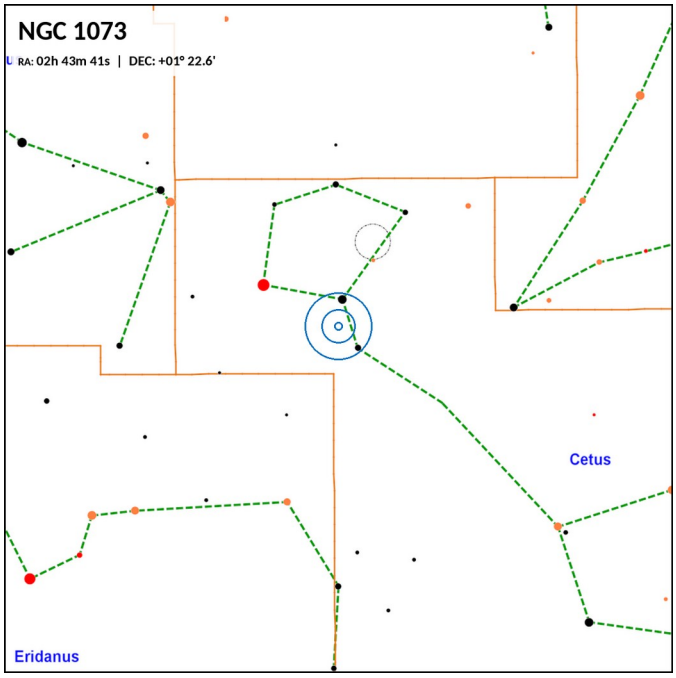


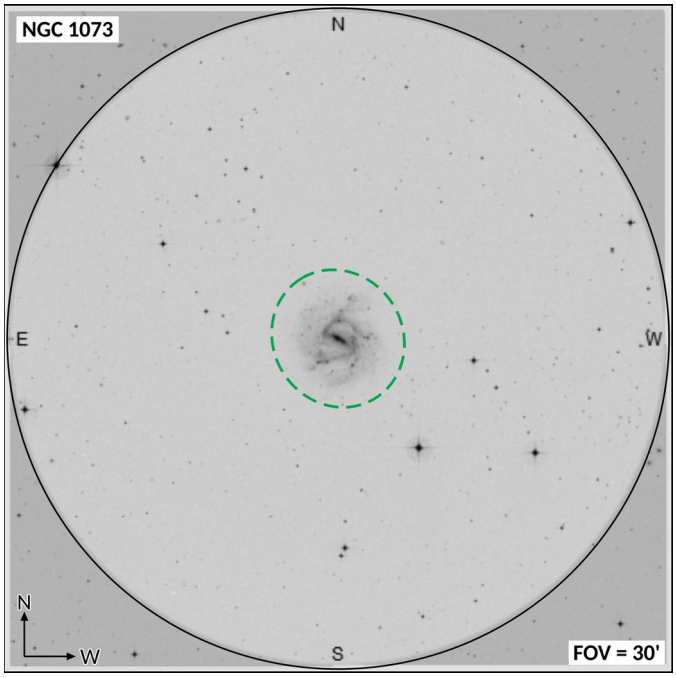
NGC 1055 (G || Mag=10.6 | Size=7.6'x2.7' | SB=22.5 | mBortle=4 | mApt=114mm | MC=SBb |) An edge-on spiral whose bright bulge is crossed by a wide, knotty lane of dust, about 52 million light years away. With Messier 77, half a degree to the southeast, it is one of the two largest galaxies in their group. It is bright in infrared and radio light from unusually active star formation. Member of M77 Group.



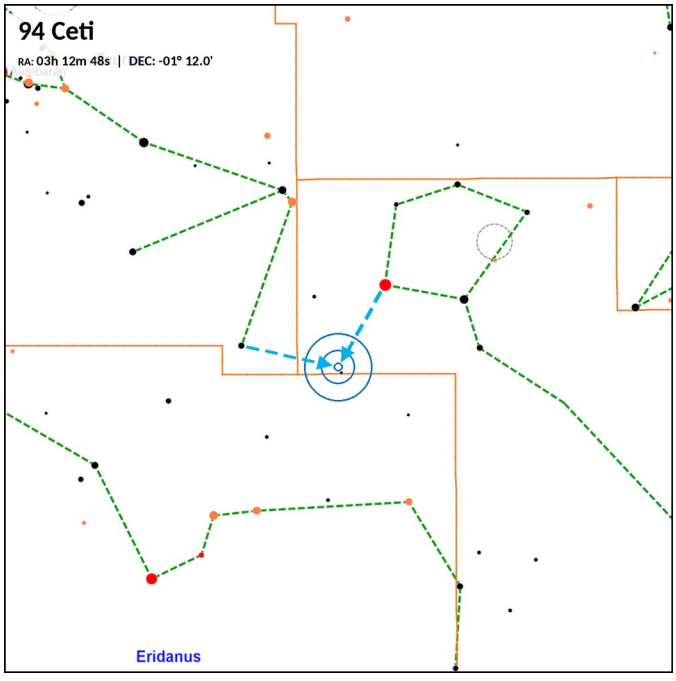


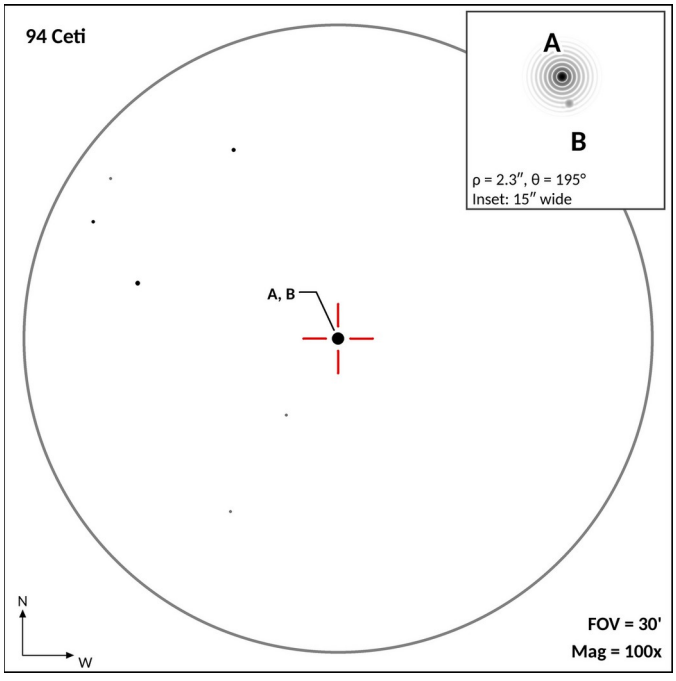
NGC 1073 (G || Mag=11.0 | Size=4.9'x4.5' | SB=23.0 | mBortle=1 | mApt=300mm | MC=SB(rs)c |) A barred spiral about 55 million light years away and 80,000 light years across. Its bar is larger than the Milky Way's, but its arms are loose and irregular rather than well defined. It needs a mid-sized telescope and dark rural skies to observe. Member of M77 Group.





94 Ceti (DS || **AB** | Mag=5.1 / 11.0 | Sep=2.3" | PA=195° | mApt=300mm | RecMag=100x | Period=1420y | Spec=F8V / M3V | Color=yellow-white / red |) A triple system: the yellow-white primary, with a mass about 1.3 times that of our Sun's, hosts a giant planet and is orbited by a faint red dwarf, itself a pair too close to split in any telescope.





Observation Log: Cetus (Cet)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Observation Log: Cetus (Cet)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide

References, Resources and Tools used to create this document

- Books
  - Objects in the Heavens: Peter Birren
  - Touring the Universe through Binoculars: Philip Harrington
  - The Deep Sky: Philip Harrington
  - Double and Multiple Stars and How to Observe Them: James Mullaney
  - Celestial Portraits: Tom Polakis
  - Star Clusters: Brent Archinal, Steve Hynes
  - Double Stars for Small Telescopes: Sissy Haas
  - Sky Spot Books
    - Bright Telescopic Objects: Brent Watson
    - Select Double Stars: Brent Watson
    - Overlooked Objects: Brent Watson
- Asterisms
  - Astronomical League: Asterisms Observing Program list
  - Asterisms: Demelza Ramakers
  - Pattern Asterisms: John Chiravalle
  - Milwaukee Astronomical Society: Binocular Asterisms
  - Deep-Sky.co.uk: Observing Asterisms (David Ratledge)
- Saguaro Astronomy Club
  - Asterisms List
  - 110 Best of the NGC
  - Red Stars List
- Online
  - Wikipedia
  - The Garden Astronomer: Double, Multiple, and Special Star Observations List
  - Sky & Telescope: Colored Double Stars, Real and Imagined
  - In-The-Sky.org
  - Constellation-guide.com
  - Claude AI – Some Stats for targets
  - Aladin Lite – Source for a number of deep-sky images

Applications

- SkyTools 4.1 Visual Professional
- AstroPlanner Version 2.4
- Cartes du Ciel Version 4.3
- SkySafari Pro 7
- Microsoft Office Home and Business 2021 - Word
- Microsoft Visio Professional 2021
- IrfanView Version 4.72